



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 99691**

**TO: Molly Ceperley**  
**Location: CM1/8D15/7E12**  
**Art Unit: 1641**  
**Monday, July 28, 2003**  
**Case Serial Number: 09/889795**

**From: Paul Schulwitz**  
**Location: Biotech-Chem Library**  
**CM1-6B06**  
**Phone: 305-1954**

**paul.schulwitz@uspto.gov**

### **Search Notes**

Examiner Ceperley,

See attached results.

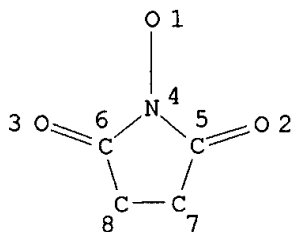
If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Paul Schulwitz  
Technical Information Specialist  
STIC Biotech/Chem Library  
(703)305-1954

=&gt; d que

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON N-HYDROXYSUCCINIMIDE/CN  
 L2 STR



*Considered.*  
 07/29/03  
 MEC

## NODE ATTRIBUTES:

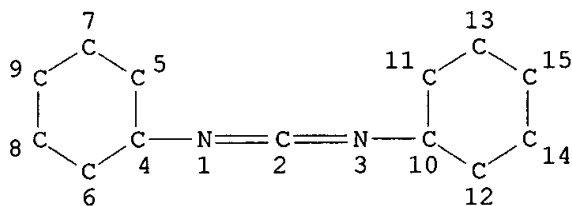
CONNECT IS E1 RC AT 1  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

## STEREO ATTRIBUTES: NONE

L4 286 SEA FILE=REGISTRY SSS FUL L2  
 L5 286 SEA FILE=REGISTRY ABB=ON PLU=ON L1 OR L4  
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON SULFO-N-HYDROXYSUCCINIMIDE/CN  
 L7 286 SEA FILE=REGISTRY ABB=ON PLU=ON L5 OR L6  
 L8 1 SEA FILE=REGISTRY ABB=ON PLU=ON EDAC/CN  
 L9 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("1-CYCLOHEXYL-3-(2-MORPHOLINOETHYL) CARBODIIMIDE"/CN OR "1-CYCLOHEXYL-3-(2-MORPHOLINOETHYL) CARBODIIMIDE METHIODIDE"/CN OR "1-CYCLOHEXYL-3-(2-MORPHOLINOETHYL) CARBODIIMIDE METHO-P-TOLUENESULFONATE"/CN OR "1-CYCLOHEXYL-3-(2-MORPHOLINOETHYL) CARBODIIMIDE METHO-P-TOLUENESULPHONATE"/CN OR "1-CYCLOHEXYL-3-(2-MORPHOLINOETHYL) CARBODIIMIDE METHYL-P-TOLUENESULFONATE"/CN)  
 L11 STR



## NODE ATTRIBUTES:

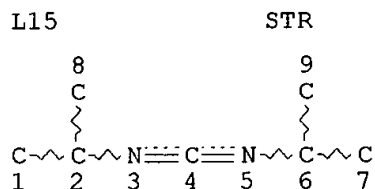
DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 15

## STEREO ATTRIBUTES: NONE

L13 100 SEA FILE=REGISTRY FAM FUL L11



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L17 9 SEA FILE=REGISTRY FAM FUL L15  
 L19 1 SEA FILE=REGISTRY ABB=ON PLU=ON "N,N'-CARBONYLDIIMIDAZOLE"/CN

L20 474 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 AND (L8 OR L9 OR L13 OR  
 L17 OR L19)

~~L21~~ 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND (REHYDR? OR HYDRAT?  
 OR DRY? OR DRIED OR FREEZEDR? OR SEQUESTER? )

~~=> d ibib abs hitind hitstr l21-l-21~~

L21 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:307516 HCAPLUS

DOCUMENT NUMBER: 138:332204

TITLE: Preparation and use of a quantitative immunoassay for  
 the determination of progesterone levels in a blood  
 sample

INVENTOR(S): Das, Chandana

PATENT ASSIGNEE(S): The Director All India Institute of Medical Sciences,  
 India

SOURCE: Indian, 18 pp.

CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 176675	A	19960824	IN 1991-DE257	19910327
PRIORITY APPLN. INFO.:			IN 1991-DE257	19910327

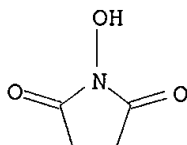
AB This invention relates to a process for the prepn. of a device for detg.  
 the quant. level of progesterone contained in a blood sample comprising  
 washing a polypropylene test tube with distd. water. Said test tube is  
**dried** at room temp. Applying a coating of a progesterone antibody  
 having sensitivity of 2 to 5 pg/mL obtained from a rabbit injected with  
 progesterone combined with bovine serum albumin on the inner surface of  
 said test tube. And adding progesterone penicillinase conjugate to the  
 blood sample to be tested.

IC ICM G01N033-53

CC 2-1 (Mammalian Hormones)  
 Section cross-reference(s): 32  
 IT 123-91-1, Dioxane, reactions **1892-57-5 6066-82-6**,  
 N-Hydroxysuccinimide 50909-89-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of progesterone penicillinase conjugate to use in a quant.  
 progesterone immunoassay of a blood sample)  
 IT **1892-57-5 6066-82-6**, N-Hydroxysuccinimide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of progesterone penicillinase conjugate to use in a quant.  
 progesterone immunoassay of a blood sample)  
 RN 1892-57-5 HCAPLUS  
 CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX  
 NAME)

Et-N=C=N-(CH<sub>2</sub>)<sub>3</sub>-NMe<sub>2</sub>

RN 6066-82-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:76731 HCAPLUS  
 DOCUMENT NUMBER: 138:133508  
 TITLE: Method for chemical functionalization of solid  
 supports and use in immobilization of biomolecules  
 INVENTOR(S): Dugas, Vincent; Chevalier, Yves; Souteyrand, Eliane  
 PATENT ASSIGNEE(S): Centre National De La Recherche Scientifique, Fr.;  
 Ecole Centrale De Lyon  
 SOURCE: PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003008360	A1	20030130	WO 2002-FR2364	20020705
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,				

CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG

FR 2826957 A1 20030110 FR 2001-9082 20010709

PRIORITY APPLN. INFO.: FR 2001-9082 A 20010709

AB The solid supports are selected from glass, plastics, metal oxides, silica, semiconductor materials and are functionalized by silylation or hydrosilylation with substituted alkyl(alkylamino)silanes contg. protected carboxyl groups at the ends of C2-18 linear or branched hydrocarbon chains. Biomols. can be attached via thermal deprotection of the carboxyl groups (esters) followed by reaction with amine or hydroxyl-functionalized nucleic acids, polypeptides, lipids, carbohydrates, hormones, etc. Glass slides were immersed in H2SO4/H2O2 cleaning soln. at 80.degree. for 1 h, rinsed with ultrapure water, and **dried**; silylation of the cleaned surfaces was carried out by heating to 140.degree. under N or Ar, cooling in an ice bath, adding 150 mL pentane to cover the surface, then 300 .mu.L silane and heating to 140.degree. to evap. the pentane under inert gas flow for 12 h. The silanized plates were cleaned under ultrasound in THF bath for use in immobilization of oligonucleotides.

IC ICM C07B047-00

ICS B01J031-16; G01N033-547; G01N033-543

CC 9-14 (Biochemical Methods)

IT 75-77-4DP, Chlorotrimethylsilane, reaction products with carboxylamine compds., esters, biomol. derivs. **693-13-ODP**, Diisopropylcarbodiimide, reaction products with glass-anchored alkoxyaminosilane esters, biomol. derivs. **6066-82-6DP**, N-Hydroxysuccinimide, reaction products with glass-anchored alkoxyaminosilane esters, biomol. derivs.

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(silylation and hydrosilylation of solid supports with alkylaminosilane esters and thermal deprotection of esters to immobilize biomols.)

IT **693-13-ODP**, Diisopropylcarbodiimide, reaction products with glass-anchored alkoxyaminosilane esters, biomol. derivs. **6066-82-6DP**, N-Hydroxysuccinimide, reaction products with glass-anchored alkoxyaminosilane esters, biomol. derivs. RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (silylation and hydrosilylation of solid supports with alkylaminosilane esters and thermal deprotection of esters to immobilize biomols.)

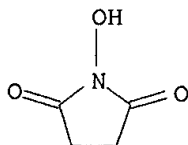
RN 693-13-0 HCAPLUS

CN 2-Propanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)

i-Pr-N=C=N-Pr-i

RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:825899 HCAPLUS

DOCUMENT NUMBER: 138:113964

TITLE: Preparation, characterization and application of alkanethiol self-assembled monolayers modified with tetrathiafulvalene and glucose oxidase at a gold disk electrode

AUTHOR(S): Campuzano, Susana; Galvez, Rocio; Pedrero, Maria; De Villena, F. Javier Manuel; Pingarron, Jose M.

CORPORATE SOURCE: Dpto. Quimica Analitica. Facultad de CC. Quimicas. Universidad Complutense de Madrid, Madrid, E-28040, Spain

SOURCE: Proceedings - Electrochemical Society (2001), 2001-18 (Chemical and Biological Sensors and Analytical Methods II), 602-608  
CODEN: PESODO; ISSN: 0161-6374

PUBLISHER: Electrochemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this work, the results obtained with a gold disk electrode modified with alkanethiol self-assembled monolayers (SAMs), and glucose oxidase (GOD), and the redox mediator tetrathiafulvalene (TTF) immobilized atop are presented. Thus, a gold electrode modified with a mercaptopropionic acid SAM, where GOD and TTF were immobilized by crosslinking with glutaraldehyde, allowed linear calibration curves for glucose, obtained by amperometry in stirred solns. at an applied potential of +0.20 V, in the  $5.0 \times 10^{-6}$  -  $1.0 \times 10^{-2}$  mol L<sup>-1</sup> range. A detection limit of  $1.3 \times 10^{-6}$  mol L<sup>-1</sup>, and a RSD of 5.2% (n=10), at a concn. level of  $1.0 \times 10^{-4}$  mol L<sup>-1</sup>, were found. No leaching of the enzyme and mediator is obsd. during the whole working day. The modified electrode is stable in **dry** conditions for 24 h and for at least 100 h if kept in a 4.degree.C H<sub>2</sub>PO<sub>4</sub>/HPO<sub>4</sub><sup>2-</sup> buffer soln. (pH 7.4).

CC 72-2 (Electrochemistry)

Section cross-reference(s): 9, 60, 66

IT 111-30-8, Glutaraldehyde **1892-57-5**, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide **82436-78-0**, N-Hydroxysulfosuccinimide

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(use for enzyme crosslinking immobilization on gold disk electrode modified with alkanethiol self-assembled monolayers with tetrathiafulvalene and glucose oxidase)

IT **1892-57-5**, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide

**82436-78-0**, N-Hydroxysulfosuccinimide

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(use for enzyme crosslinking immobilization on gold disk electrode modified with alkanethiol self-assembled monolayers with tetrathiafulvalene and glucose oxidase)

RN 1892-57-5 HCAPLUS

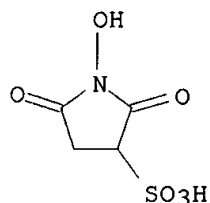
CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)

Et-N≡C≡N-(CH<sub>2</sub>)<sub>3</sub>-NMe<sub>2</sub>

Et-N=C=N-(CH<sub>2</sub>)<sub>3</sub>-NMe<sub>2</sub>

RN 82436-78-0 HCAPLUS

CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:637644 HCAPLUS

DOCUMENT NUMBER: 137:169324

TITLE: Process for preparation of halogeno alcohol derivatives from N-benzyloxycarbonyl-S-phenyl-L-cysteine

INVENTOR(S): Shimizu, Susumu; Sunagawa, Kazuhiko; Iwama, Hideki; Niimura, Koichi; Katohno, Masataka; Mizusawa, Shigeru

PATENT ASSIGNEE(S): Kureha Chemical Industry Company, Limited, Japan

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002064553	A1	20020822	WO 2002-JP1267	20020214
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: JP 2001-37325 A 20010214

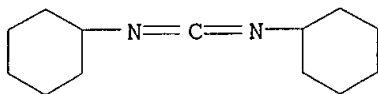
OTHER SOURCE(S): CASREACT 137:169324; MARPAT 137:169324

GI

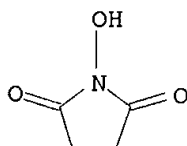
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

- AB A process for prepn. of halogeno alc. derivs. represented by the general formula (I; X = halo) and novel useful intermediates are provided. Halogeno alcs. of the general formula I, i.e., (2S,3R)-N-Cbz-3-amino-1-halogeno-4-phenylsulfanylbutan-2-ol derivs. (Cbz = benzyloxycarbonyl), can be efficiently prepd. from a publicly known starting compd., i.e., N-Cbz-S-phenyl-L-cysteine, through novel active ester derivs. and novel ylide compd., i.e. dimethylsulfoxonium 3-benzyloxycarbonylamino-4-phenylthio-2-oxobutylide or 3-benzyloxycarbonylamino-1-(dimethylsulfoxonio)-4-phenylthio-2-butanone ylide, of the general formulas [II; Z = linear or branched C1-4 alkoxy, C1-4 alkylthio, (un)substituted phenoxy, phenylthio, benzyloxy, or benzylthio, pyridyloxy, pyridylthio, ethoxyvinylloxy, linear or branched C1-4 alkylcarbonyloxy, substituted phosphoric acid ester, substituted sulfuric acid ester, imidazolyl, N3, alkoxycarbonyloxy, cyclohexylcarbodimidoxy, succinimidoxy, phthalimidoxy, benzotriazolylloxy, piperidinooxy, halo] and (III) and halomethyl ketone intermediates of the general formula (IV; X = halo). The halogeno alcs. I are useful as intermediates for a HIV-protease inhibitor, [3S-(3.alpha.,4a.beta.,8a.beta.)]-2-[2-hydroxy-3-phenylthiomethyl-4-aza-5-oxo-5-(2-methyl-3-hydroxyphenyl)pentyl]decahydroisoquinoline-3-N-tert-butylcarboxamide (V). Thus, 9.94 g N-benzyloxycarbonyl-S-phenyl-L-cysteine was dissolved in 60 mL dioxane, and treated with 3.46 g N-hydroxysuccinimide, cooled to 4.degree. in ice-water, followed by adding 6.4 g DCC, and the resulting mixt. was stirred for 30 min at 7.degree. to give 98.4% N-benzyloxycarbonyl-S-phenyl-L-cysteine N-hydroxysuccinimide ester (VI). NaH (60%, 0.186 g) was washed twice with 5 mL hexane and suspended in 10 mL DMSO, followed by adding 1.03 g trimethylsulfoxonium iodide in portions, and the resulting mixt. was stirred for 10 min and heated at 55.degree. with stirring for 30 min to give a soln. of dimethylsulfoxonium methylide (Corey's reagent). To the soln. was added 10 mL THF, cooled to -12.degree., followed by adding a soln. of 1.0 g VI in 5 mL THF, and the resulting mixt. was stirred at -12.degree. for 1.75 h to give 83.6% III. III (0.78 g) was dissolved in 30 mL EtOAc, cooled to -20.degree., treated dropwise with 2.18 N HCl/EtOAc at -20.degree. in a **dry** ice-acetone bath, and warmed to -10.degree. over 1 h with stirring, warmed to room temp., and heated at 78.degree. for 20 min to give chloromethyl ketone IV (X = Cl). IV (X = Cl) (9.1 g) was added to a soln. of 3.08 g aluminum sec-butyrate in 50 mL toluene with stirring at 17.degree., followed by adding 25 mL toluene, and the resulting mixt. was stirred for 4.5 h to give 96.7% I (X = Cl).
- IC ICM C07C319-20  
ICS C07C323-32; C07C381-12; C07B053-00
- CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 1
- IT 79-37-8, Oxalyl chloride 100-02-7, p-Nitrophenol, reactions 100-51-6, Benzyl alcohol, reactions 100-53-8, Benzyl mercaptan 108-95-2, Phenol, reactions 108-98-5, Thiophenol, reactions 288-32-4, Imidazole, reactions 507-16-4, Thionyl bromide 524-38-9, N-Hydroxyphthalimide **538-75-0**, DCC 1774-47-6, Trimethylsulfoxonium iodide 2592-95-2, 1-Hydroxybenzotriazole 4421-54-9, Ethenone ethyl hemiacetal 4801-58-5, 1-Hydroxypiperidine **6066-82-6**, N-Hydroxysuccinimide 7719-09-7, Thionyl chloride 7782-79-8, Hydrogen azide 7791-25-5, Sulfuryl chloride 10025-87-3, Phosphorus oxychloride 10026-13-8, Phosphorus pentachloride 25596-24-1, Trimethylsulfoxonium bromide 27341-45-3, Pyridinol 29467-96-7, Pyridinethiol 159453-24-4, N-Benzyloxycarbonyl-S-phenyl-L-cysteine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of (benzyloxycarbonylamino)halophenylthiobutanol from

IT N-benzyloxycarbonyl-S-phenyl-L-cysteine active ester)  
 538-75-0, DCC 6066-82-6, N-Hydroxysuccinimide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of (benzyloxycarbonylamino)halophenylthiobutanol from  
 N-benzyloxycarbonyl-S-phenyl-L-cysteine active ester)  
 RN 538-75-0 HCAPLUS  
 CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:595357 HCAPLUS  
 DOCUMENT NUMBER: 137:145650  
 TITLE: Dehydrated hydrogel precursor-based tissue adhesive  
 compositions  
 INVENTOR(S): Sawhney, Amarpreet S.; Edelman, Peter G.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 8 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

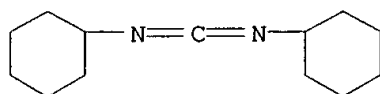
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002106409	A1	20020808	US 2001-776120	20010202
WO 2002062276	A1	20020815	WO 2002-US3101	20020131

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
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 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
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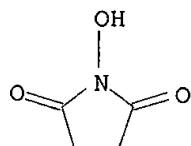
PRIORITY APPLN. INFO.: US 2001-776120 A 20010202  
 AB Compns. and methods are provided for forming tissue-adherent hydrogels

using substantially **dry** precursors. The dehydrated precursors are premixed prior to in situ therapy and utilize naturally-occurring body fluids as an aq. environment that initiates transformation, which causes dissoln. and nearly simultaneous crosslinking of the precursors, thus forming an insol. hydrogel implant. The dehydrated precursor-based hydrogels may be used as sealants for fluid leaks from tissue, as adherent drug delivery depots, as means for augmenting and/or supporting tissue, and as means for serving a variety of other useful medical and surgical purposes. A dehydrated adhesive compn. was formulated using two dehydrated hydrogel precursors. Precursor A consisted of polyethylene glycol amine, and precursor B consisted of polyethylene glycol extended with succinimidyl glutarate ester. The 2 precursors were mixed and ground together in a mortar and pestle until a smooth mixt. was obtained. This mix was termed Mixt. A. Mixt. B was created like Mixt. A, but with addnl. incorporation of human thrombin (500 Units) to the compn. A midline laparotomy was created in a hog under general anesthesia. The hog was given 50 mg/Kg Heparin to induce anticoagulation. Hemostasis was obtained in Mixt. A in 1 min, and in Mixt. B in 30 s,.

IC ICM A61K009-14  
 NCL 424484000  
 CC 63-7 (Pharmaceuticals)  
 IT Anti-infective agents  
 Biocompatibility  
 Coating materials  
 Crosslinking  
 Desolvation  
 Freeze **drying**  
 Human  
 Hydrogen bond  
 Molecular weight  
 Van der Waals force  
 (dehydrated hydrogel precursor-based tissue adhesive compns.)  
 IT **538-75-0**, Dicyclohexylcarbodiimide **6066-82-6**,  
 N-Hydroxysuccinimide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dehydrated hydrogel precursor-based tissue adhesive compns.)  
 IT **538-75-0**, Dicyclohexylcarbodiimide **6066-82-6**,  
 N-Hydroxysuccinimide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dehydrated hydrogel precursor-based tissue adhesive compns.)  
 RN 538-75-0 HCAPLUS  
 CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:269010 HCAPLUS

DOCUMENT NUMBER: 136:268201

TITLE: Processes for preparation of new collagen-based supports for tissue engineering and the resulting biomaterials

INVENTOR(S): Abdul, Malak Nabil; Andre, Valerie; Huc, Alain

PATENT ASSIGNEE(S): Coletica, Fr.

SOURCE: Fr. Demande, 43 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2809313	A1	20011130	FR 2001-6899	20010525
FR 2809412	A1	20011130	FR 2000-6748	20000526
FR 2809314	A1	20011130	FR 2001-6919	20010528
PRIORITY APPLN. INFO.:			FR 2000-6743	A 20000526
			FR 2000-6748	A 20000526

AB A composite product formed by a collagen support comprises a porous collagen layer coated on a collagen membrane made by **drying** a collagen gel in the air or a gas. One of the layers contains live normal or genetically-modified cells, or malignant cells. The composite is used as a support for making artificial skin. Human keratinocytes were cultured on the composite product prepd. according to above method for use as artificial skin.

IC ICM A61L027-24

ICS C12N005-08; A61L027-40; A61L027-56; A61L027-60

CC 63-7 (Pharmaceuticals)

IT 111-30-8DP, Glutaraldehyde, reaction products with collagens

**1892-57-5DP**, reaction products with collagens **6066-82-6DP**

, reaction products with collagens 26386-88-9DP,

Diphenylphosphorylazide, reaction products with collagens

RL: DEV (Device component use); PNU (Preparation, unclassified); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(processes for prepn. of new collagen-based supports for tissue engineering and resulting biomaterials)

IT **1892-57-5DP**, reaction products with collagens **6066-82-6DP**

, reaction products with collagens

RL: DEV (Device component use); PNU (Preparation, unclassified); THU

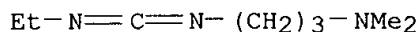
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(processes for prepn. of new collagen-based supports for tissue engineering and resulting biomaterials)

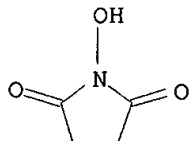
RN 1892-57-5 HCAPLUS

CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:566844 HCAPLUS

DOCUMENT NUMBER: 135:129518

TITLE: Photographic material containing a scavenger-modified polymer

INVENTOR(S): Kluijtmans, Sebastianus Gerardus Johannes Maria;  
Bouwstra, Jan Bastiaan; Toda, Yuzo

PATENT ASSIGNEE(S): Fuji Photo Film B.V., Neth.

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

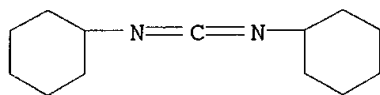
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055788	A1	20010802	WO 2001-NL53	20010126
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1122597	A1	20010808	EP 2000-200275	20000126
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
EP 1257876	A1	20021120	EP 2001-906418	20010126
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003521007	T2	20030708	JP 2001-555270	20010126
PRIORITY APPLN. INFO.:			EP 2000-200275	A 20000126
			WO 2001-NL53	W 20010126

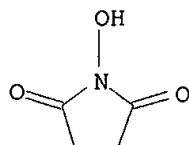
AB The invention is directed to the field of photog. materials contg. scavenger mols. that are applied into the intermediate interlayers between

sensitive emulsion layers. The photog. material comprises a photog. support and color sensitive recording layers on top of the support, the recording layers being sepd. from each other by interlayers, wherein the interlayers are characterized by the interlayer design parameter ([SC] d<sup>2</sup>) (wherein [SC] is the concn. scavenger moieties bound to the H<sub>2</sub>O sol. polymer applied in the interlayer per g total interlayer polymer and d the **dry** thickness of the interlayer) having a value larger than 2.0 10-15 m mol m<sup>2</sup>/g and a max. concn. [SC] of 0.5 m mol/g.

IC ICM G03C007-396  
ICS G03C007-30  
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 490-79-9, 2,5\_Dihydroxybenzoic acid **538-75-0**,  
Dicyclohexylcarbodiimide **6066-82-6**, N-Hydroxysuccinimide  
9012-09-3, Triacetylcellulose 351210-15-6  
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(synthesis of scavenger-modified gelatin for photog. material using)  
IT **538-75-0**, Dicyclohexylcarbodiimide **6066-82-6**,  
N-Hydroxysuccinimide  
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(synthesis of scavenger-modified gelatin for photog. material using)  
RN 538-75-0 HCAPLUS  
CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS  
CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:573897 HCAPLUS  
DOCUMENT NUMBER: 133:174260  
TITLE: Luminescent metal-ligand complexes  
INVENTOR(S): Terpetschnig, Ewald A.; Yang, Dan-hui; Owicki, John C.  
PATENT ASSIGNEE(S): Ljl Biosystems, Inc., USA  
SOURCE: PCT Int. Appl., 76 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 22

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000047693	A1	20000817	WO 2000-US3589	20000211
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6258326	B1	20010710	US 1998-156318	19980918
US 2001021514	A1	20010913	US 2001-767583	20010122
WO 2002035260	A3	20021024	WO 2001-US46411	20011029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1999-119884P	P 19990212
			US 1999-165813P	P 19991116
			US 1997-59640P	P 19970920
			US 1998-85500P	P 19980514
			US 1998-89848P	P 19980619
			WO 2000-US3589	A1 20000211
			US 2000-244012P	P 20001027
OTHER SOURCE(S): MARPAT 133:174260				
AB	Compns. are described which comprise photoluminescent metal-ligand complexes having a high intrinsic fundamental polarization which are described by the general formulas B-M-L-R1 or R2(R3)M(E1)E2 (M = a long-lifetime luminophor, esp. Ru, Os, or Rh; L = independently selected -C(:O)-(O)m-Q1 groups; m = 0 or 1; Q = alkyl or aryl; R1 = -N:C:S or -NH-C(:S)-NH-P'; R2, R3 = -N:C:S, L-N:C:S, -NH-C(:S)-NH-P', or L-NH-C(:S)-NH-P' for which the L groups are selected independently; P' = proteins, polynucleotides, antibodies, beads, and solid supports; E1 = an electron-withdrawing group; and E2 = H or an electron-withdrawing group). Use in luminescence assays is indicated. The complexes and/or acceptors may be used in free, reactive, and/or conjugated form, alone or mixed with other compds. Preferred luminescence assays include luminescence polarization and luminescence resonance energy transfer assays, among others.			
IC	ICM C09K011-06			
	ICS C07F013-00; C07F017-02; C07F017-00			
CC	9-5 (Biochemical Methods)			
	Section cross-reference(s): 15, 73			
IT	100-02-7, p-Nitrophenol, reactions 143-66-8, Sodium tetraphenylborate 463-71-8, Thiophosgene <b>538-75-0</b> , 1,3-Dicyclohexylcarbodiimide 590-97-6, Bromomethylacetate 631-61-8, Ammonium acetate 983-80-2, cis-1,2-Bis(diphenylphosphino)ethylene 1134-35-6, 4,4'-Dimethyl-2,2'-			

bipyridine 2353-45-9, Fast green FCF 4199-88-6, 5-Nitro-1,10-phenanthroline **6066-82-6**, N-Hydroxysuccinimide 6153-92-0, 4,4'-Diphenyl-2,2'-bipyridine 6160-65-2, Thiocarbonyldiimidazole 6813-38-3, 4,4'-Dicarboxyl-2,2'-bipyridine 7719-09-7, Thionyl chloride 7803-57-8, Hydrazine **hydrate** 10049-08-8, Ruthenium trichloride 12125-08-5 15746-57-3, Bis(2,2'-bipyridyl)ruthenium dichloride 16941-11-0, Ammonium hexafluorophosphate 26690-80-2 52746-49-3, Bathophenanthroline disulfonic acid disodium salt 71071-46-0 105832-38-0, O-(N-Succinimidyl)-N,N,N',N'-tetramethyluronium tetrafluoroborate 288396-48-5

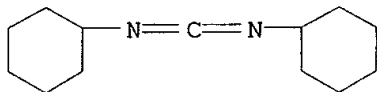
RL: RCT (Reactant); RACT (Reactant or reagent)  
(luminescent metal-ligand complexes)

IT **538-75-0**, 1,3-Dicyclohexylcarbodiimide **6066-82-6**, N-Hydroxysuccinimide

RL: RCT (Reactant); RACT (Reactant or reagent)  
(luminescent metal-ligand complexes)

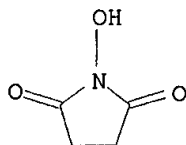
RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:513898 HCAPLUS

DOCUMENT NUMBER: 133:101746

TITLE: Simple method for labeled conjugate production using N-hydroxysuccinimide and phase changes to control the reaction

INVENTOR(S): Morseman, John P.; Zeng, Xiangfei

PATENT ASSIGNEE(S): Martek Biosciences Corporation, USA

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043784	A1	20000727	WO 2000-US1350	20000121

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2359234 AA 20000727 CA 2000-2359234 20000121

EP 1145007 A1 20011017 EP 2000-903358 20000121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002535657 T2 20021022 JP 2000-595154 20000121

PRIORITY APPLN. INFO.:

US 1999-116689P P 19990122

WO 2000-US1350 W 20000121

AB The present invention relates to methods for coupling labels to particular target moieties. The coupling reactions of the present invention use temporal spacing of the reactants through phase change (i.e. by rapid freezing) to control the initiation and termination of reaction. This process results in a simplified and improved method for linking labels to specific binding moieties using N-hydroxysuccinimide chem. The present invention further relates to kits comprising all necessary components to easily and rapidly make protein conjugates. Phycoerythrin was conjugated to streptavidin via EDAC/sulfo-NHS from a freeze **dried** reagent where D-(+)-trehalose was used.

IC ICM G01N033-532

CC 9-14 (Biochemical Methods)

IT Containers

(contg. **dried** labeling components; simple method for labeled conjugate prodn. using N-hydroxysuccinimide and phase changes to control reaction)

IT 541-59-3D, Maleimide, compds. **1892-57-5**, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide **6066-82-6**, N-Hydroxysuccinimide 9013-20-1, Streptavidin **82436-78-0**, N-Hydroxysulfosuccinimide

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(simple method for labeled conjugate prodn. using N-hydroxysuccinimide and phase changes to control reaction)

IT **1892-57-5**, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide **6066-82-6**, N-Hydroxysuccinimide **82436-78-0**, N-Hydroxysulfosuccinimide

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(simple method for labeled conjugate prodn. using N-hydroxysuccinimide and phase changes to control reaction)

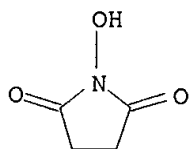
RN 1892-57-5 HCAPLUS

CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)

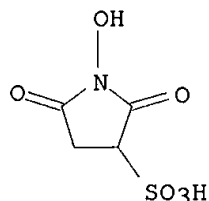
Et-N=C=N-(CH<sub>2</sub>)<sub>3</sub>-NMe<sub>2</sub>

RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



RN 82436-78-0 HCAPLUS  
 CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:368285 HCAPLUS  
 DOCUMENT NUMBER: 133:4458  
 TITLE: Amphiphilic polyamine compounds as gene transfection promoting agents  
 INVENTOR(S): Felgner, Philip L.; Gao, Xiang; Ling, Jing  
 PATENT ASSIGNEE(S): Gene Therapy Systems, Inc., USA  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000031022	A1	20000602	WO 1999-US27737	19991124
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1133465	A1	20010919	EP 1999-961766	19991124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6348499	B1	20020219	US 1999-448876	19991124
JP 2002530364	T2	20020917	JP 2000-583850	19991124
US 6433017	B1	20020813	US 2001-796340	20010228
PRIORITY APPLN. INFO.:			US 1998-110020P	P 19981125

US 1998-111078P P 19981204

US 1999-448876 A3 19991124

WO 1999-US27737 W 19991124

OTHER SOURCE(S): MARPAT 133:4458

AB Amphiphilic polyamine compds. and derivs. thereof having the property of promoting transfection of polynucleotides and polypeptides into cells, and formulations comprising said compds. and a co-lipid, are disclosed. The polyamine compds. are preferably polyamidines compds., particularly lysine polyamidines compds., and the co-lipid are either phospholipid or a Rosenthal inhibitor ester or its deriv. Amphiphilic lysine polyamidines compds. and various derivs. with amine protecting groups were synthesized. These compds. showed higher gene transfection activities in mammalian cells than LipofectAMINE.

IC ICM C07C237-22

ICS C12N015-88; A61K048-00; C07C217-22; C07C217-20; C07C311-19;  
C07C311-64

CC 23-18 (Aliphatic Compounds)

Section cross-reference(s): 3

IT 76-05-1, Trifluoro acetic acid, reactions 107-13-1, 2-Propenenitrile, reactions 112-99-2, Dioctadecylamine 121-44-8, reactions 538-75-0, Dicyclohexylcarbodiimide 2389-45-9 2389-60-8D, DCC and NHS activated 2592-95-2D, 1-Hydroxybenzotriazole, **hydrate** 6066-82-6, N-Hydroxysuccinimide 13836-37-8 25952-53-8, N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride 29843-07-0 30189-36-7 34695-46-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(amphiphilic polyamine compds. as gene transfection promoting agents)

IT 538-75-0, Dicyclohexylcarbodiimide 6066-82-6,

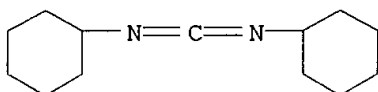
N-Hydroxysuccinimide

RL: RCT (Reactant); RACT (Reactant or reagent)

(amphiphilic polyamine compds. as gene transfection promoting agents)

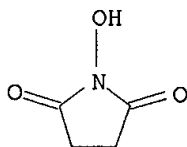
RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:672621 HCAPLUS

DOCUMENT NUMBER: 131:298659

TITLE: Inhibition of xenoreactive antibodies  
 INVENTOR(S): Schwarz, Alexander; Davis, Thomas A.; Diamond, Lisa  
 E.; Logan, John S.; Byrne, Guerard W.  
 PATENT ASSIGNEE(S): Baxter International Inc., USA  
 SOURCE: PCT Int. Appl., 148 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952561	A1	19991021	WO 1999-US8326	19990415
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326618	AA	19991021	CA 1999-2326618	19990415
AU 9935645	A1	19991101	AU 1999-35645	19990415
AU 761831	B2	20030612		
EP 1087791	A1	20010404	EP 1999-917553	19990415
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2002511431	T2	20020416	JP 2000-543171	19990415
PRIORITY APPLN. INFO.:				
			US 1998-60525	A 19980415
			WO 1999-US8326	W 19990415

AB One aspect of the present invention relates to methods and compns. for attenuating xenograft rejection by administering, to an animal receiving the xenograft, an amt. of a polymer-derivatized xenoantigen (hereinafter "xenopolymer") effective for inhibiting or lessening the severity of hyperacute rejection response (HAR), or other immunol. response to the graft, that is dependent on the presence of the xenoantigen on the grafted tissues or cells. In certain embodiments, the xenopolymer is administered in an amt. sufficient to neutralize host antibodies ("xenoreactive antibodies" or "XNA") immunoreactive with the xenoantigen. The xenopolymer may addnl., or alternatively, be used as a tolerogen (or anergen) for the xenoantigen, e.g., able to suppress, to some degree, the prodn./secretion of XNAs by the immune system of the host.

IC ICM A61K047-48  
 ICS A61K031-70  
 CC 15-2 (Immunochemistry)  
 IT Amide group  
 Amino group  
 Baboon  
 Blood  
 Blood plasma  
 Buffers  
 Carboxyl group  
 Cross-coupling reaction  
 Crosslinking agents  
 Culture media  
 Drug delivery systems

**Drying agents**

Epitopes

Formyl group

Functional groups

Macaca irus

Phosphate group

Polydispersity

Primate

Swine

Test kits

Transplant and Transplantation

Transplant rejection

(prepn. of polymer-derivatized xenoantigen for attenuating xenograft rejection)

IT **6066-82-6**, N-Hydroxysuccinimide

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of polymer-derivatized xenoantigen for attenuating xenograft rejection)

IT **538-75-0**, Dicyclohexyldiimide 25322-68-3 25952-53-8, EDC**82436-78-0**, N-Hydroxysulfosuccinimide

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(prepn. of polymer-derivatized xenoantigen for attenuating xenograft rejection)

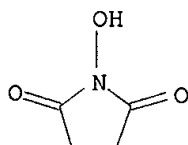
IT **6066-82-6**, N-Hydroxysuccinimide

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of polymer-derivatized xenoantigen for attenuating xenograft rejection)

RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

IT **538-75-0**, Dicyclohexyldiimide **82436-78-0**,

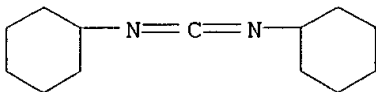
N-Hydroxysulfosuccinimide

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(prepn. of polymer-derivatized xenoantigen for attenuating xenograft rejection)

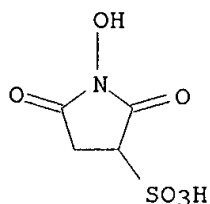
RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 82436-78-0 HCAPLUS

CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:139773 HCAPLUS

DOCUMENT NUMBER: 130:200953

TITLE: A method of crosslinking collagen-based material and bioprosthetic devices produced therefrom

INVENTOR(S): Hendriks, Marc; Verhoeven, Michel; Cahalan, Patrick T.; Torrianni, Mark W.; Fouache, Benedicte; Cahalan, Linda

PATENT ASSIGNEE(S): Medtronic, Inc., USA

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 897942	A1	19990224	EP 1998-306595	19980818
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6166184	A	20001226	US 1997-912778	19970818

PRIORITY APPLN. INFO.: US 1997-912778 A 19970818

AB Methods of crosslinking collagen-based material having collagen amine groups and collagen carboxyl groups are provided. The methods comprise blocking at least a portion of the collagen amine groups with a blocking agent to form blocked amine groups; contacting the collagen-based material having the blocked amine groups with a polyfunctional spacer; and activating at least a portion of the collagen carboxyl groups after blocking at least a portion of the collagen amine groups, wherein the polyfunctional spacer crosslinks the collagen-based material and wherein said contacting step may be effected before or after said activating step. Bioprosthetic devices made from these crosslinked collagen-based materials are also provided. Crosslinking involving the JEFFAMINE spacers shows the fastest **rehydration**, whereas glutaraldehyde crosslinking tends to be a bit slower. The highly hydrophilic crosslinked collagen-derived materials promote infiltration and diffusion of tissue fluid through the material matrix, providing supply of oxygen, nutritive substances, electrolytes and drainage of metabolites. Also, ingrowth of capillary blood vessels and cells is promoted, 25 and consequently the healing response is improved. In addn., hydrophilicity improves the blood compatibility of the material. Collagen samples crosslinked according to the method of the invention involving the Jeffamine D230 spacer had a cell growth inhibition of 25%, while cells with a deviant morphol. were not

obsd.

IC ICM C08H001-06  
ICS A61L027-00

CC 63-7 (Pharmaceuticals)  
Section cross-reference(s): 45

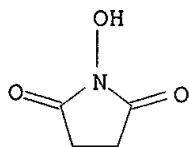
IT 1122-58-3, 4-Dimethylaminopyridine 2592-95-2, N-Hydroxybenzotriazole  
**6066-82-6**, N-Hydroxysuccinimide **39743-84-5**  
RL: NUU (Other use, unclassified); USES (Uses)  
(crosslinking collagen-based material for bioprosthetic devices manuf.)

IT 66-25-1, Hexanal 111-30-8, Glutaraldehyde 123-38-6, Propanal,  
reactions 123-72-8, Butanal 420-04-2, Cyanamide **530-62-1**,  
1,1'-Carbonyldiimidazole **538-75-0**, N,N'-Dicyclohexylcarbodiimide  
616-02-4, Citraconic anhydride **693-13-0**, N,N'-  
Diisopropylcarbodiimide 830-03-5, p-Nitrophenyl acetate 1865-01-6,  
p-Nitrophenyl formate 2466-76-4, 1-Acetylimidazole **2491-17-0**  
2635-84-9, p-Nitrophenyl butyrate **6066-82-6D**,  
N-Hydroxysuccinimide, esters 9046-10-0, Jeffamine D 230 14464-29-0,  
N-Hydroxysuccinimidyl acetate 16357-59-8, 2-Ethoxy-1-ethoxycarbonyl-1,2-  
dihydroquinoline 25952-53-8, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimi  
de hydrochloride 30364-55-7 74124-79-1, N,N'-Disuccinimidyl carbonate  
94820-31-2 152305-87-8  
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or  
reagent); USES (Uses)  
(crosslinking collagen-based material for bioprosthetic devices manuf.)

IT **6066-82-6**, N-Hydroxysuccinimide **39743-84-5**  
RL: NUU (Other use, unclassified); USES (Uses)  
(crosslinking collagen-based material for bioprosthetic devices manuf.)

RN 6066-82-6 HCAPLUS

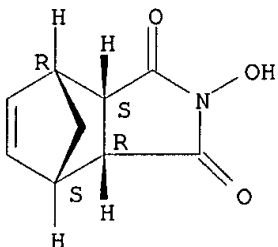
CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



RN 39743-84-5 HCAPLUS

CN 4,7-Methano-1H-isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-hydroxy-,  
(3aR,4S,7R,7aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **530-62-1**, 1,1'-Carbonyldiimidazole **538-75-0**,  
N,N'-Dicyclohexylcarbodiimide **693-13-0**, N,N'-

Diisopropylcarbodiimide 2491-17-0 6066-82-6D,

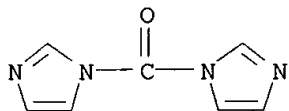
N-Hydroxysuccinimide, esters

RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(crosslinking collagen-based material for bioprosthetic devices manuf.)

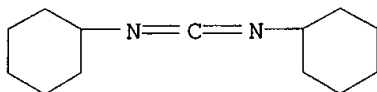
RN 530-62-1 HCAPLUS

CN 1H-Imidazole, 1,1'-carbonylbis- (9CI) (CA INDEX NAME)



RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 693-13-0 HCAPLUS

CN 2-Propanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)

i-Pr-N=C=N-Pr-i

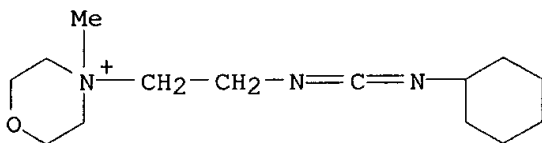
RN 2491-17-0 HCAPLUS

CN Morpholinium, 4-[2-[(cyclohexylcarbonimidoyl)amino]ethyl]-4-methyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 20702-21-0

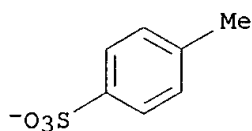
CMF C14 H26 N3 O



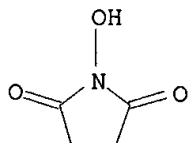
CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 6066-82-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

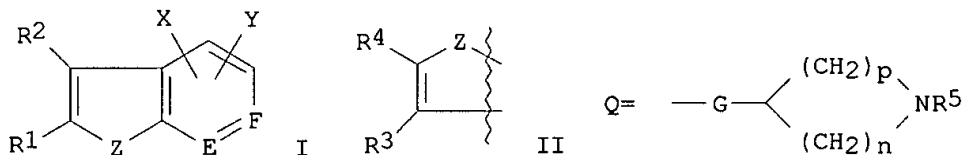


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:724203 HCAPLUS  
 DOCUMENT NUMBER: 130:38288  
 TITLE: Preparation of condensed ring aromatic compounds and dopamine receptor D4 antagonists containing the compounds for treatment of schizophrenia  
 INVENTOR(S): Takada, Susumu; Fukui, Kiichi; Sasatani, Takashi  
 PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 91 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10298180	A2	19981110	JP 1997-108832	19970425
PRIORITY APPLN. INFO.:			JP 1997-108832	19970425
OTHER SOURCE(S):		MARPAT 130:38288		

GI



AB The arom. compds. I or II [Z = O, S; R1-R4 = H, linear or branched C1-6 alkyl, C3-8 cycloalkyl, C1-3 haloalkyl, halo; R1R2 or R3R4 may form (CH2)m (m = 2-4); E, F = N, (X- or Y-substituted) CH; X = linear or branched C1-6 alkoxy, C3-8 cycloalkoxy, C3-8 cycloalkoxy-substituted linear or branched

C1-3 alkoxy; Y = Q; G = CONH, CO<sub>2</sub>, NHCO, O<sub>2</sub>C; R<sub>5</sub> = (un)substituted linear or branched C1-6 alkyl, C3-8 cycloalkyl, C7-12 spiroalkyl, aryl, etc.; n, p = 1-3; the (CH<sub>2</sub>)<sub>n</sub> and (CH<sub>2</sub>)<sub>p</sub> may be substituted; E = F .noteq. N; (n + p) .ltoreq.5], their optical isomers, their pharmacol. acceptable salts, or their **hydrates** are prepd. Dopamine D<sub>4</sub> receptor antagonists contg. I or II are also claimed. The antagonists are useful for treatment of schizophrenia without causing extrapyramidal symptoms or affecting endocrine function. Amidation of 6-methoxy-2-methylbenzo[b]thiophene-5-carboxylic acid with (3S)-3-amino-1-cyclohexylpyrrolidine gave the corresponding amide with 35% yield, which had K<sub>i</sub> 140 and 0.17 nM in binding assay of dopamine D<sub>2</sub> and D<sub>4</sub> receptor assay, resp.

IC ICM C07D409-12  
ICS C07D409-12; A61K031-33; A61K031-38; A61K031-40; A61K031-44; A61K031-445; C07D333-52; C07D409-14; C07D495-04; C07D307-78; C07D307-87

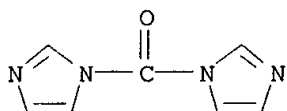
CC 27-8 (Heterocyclic Compounds (One Hetero Atom))  
Section cross-reference(s): 1, 28, 63

IT 78-88-6, 2,3-Dichloropropene **530-62-1** 545-06-2,  
Trichloroacetonitrile 775-15-5, 1-Benzyl-3-pyrrolidinol 5279-03-8  
5731-18-0 **6066-82-6**, N-Hydroxysuccinimide 7252-83-7,  
Bromoacetaldehyde dimethylacetal 18471-40-4, 3-Amino-1-benzylpyrrolidine 26386-88-9, Diphenylphosphoryl azide 53299-66-4 83179-09-3  
120930-11-2 216489-69-9 216490-30-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of condensed ring arom. compds. as dopamine D<sub>4</sub> receptor antagonists for treatment of schizophrenia)

IT **530-62-1 6066-82-6**, N-Hydroxysuccinimide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of condensed ring arom. compds. as dopamine D<sub>4</sub> receptor antagonists for treatment of schizophrenia)

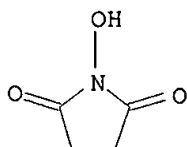
RN 530-62-1 HCAPLUS

CN 1H-Imidazole, 1,1'-carbonylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:533559 HCAPLUS

DOCUMENT NUMBER: 127:195537

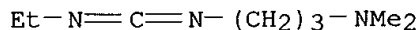
TITLE: Preparation of biological material for implants

INVENTOR(S): Lee, John Michael

PATENT ASSIGNEE(S): Lee, John Michael, Can.  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

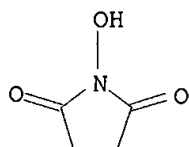
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9727885	A1	19970807	WO 1997-CA56	19970128
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2168283	AA	19970730	CA 1996-2168283	19960129
AU 9714340	A1	19970822	AU 1997-14340	19970128
PRIORITY APPLN. INFO.:			CA 1996-2168283	19960129
			WO 1997-CA56	19970128
OTHER SOURCE(S): MARPAT 127:195537				
AB	A method for prepn. of biol. material for a medical device is disclosed. Samples of intact or acellular tissue of biol. material are treated in vitro with (1) a water-sol. carbodiimide R1-N=C=N-R2 (R1, R2 = alkyl, alkylamino), in combination with (2) an agent that forms a stable activated ester with said carbodiimide. The agent to stabilize the activated esters is preferably N-hydroxysuccinimide (I) or N-hydroxysulfosuccinimide. The preferred carbodiimide is 1-ethyl-3-(dimethylaminopropyl)-carbodiimide (II). The method reduces inflammatory reactions of xenografts. Caprine carotid arteries was cut into pieces having a length of 5-6 cm and treated with a soln. of I:II (1:2) for a period of 24 h, then defatted and freeze-dried. Trypsin was added at a 1:10 enzyme to tissue ratio and samples were then incubated at 37.degree. for 48 h, then centrifuged for 30 min and the solubilized fraction was removed. The amt. of mass remaining after enzymic degn. (being a measure of the resistance of tissue to enzymic digestion) was 83.5 as compared to 21.4% for the untreated controls.			
IC	ICM A61L027-00			
CC	63-7 (Pharmaceuticals)			
	Section cross-reference(s): 9			
IT	<b>1892-57-5</b> , 1-Ethyl-3-(dimethylaminopropyl)-carbodiimide. <b>6066-82-6</b> , N-Hydroxysuccinimide <b>82436-78-0</b> , N-Hydroxysulfosuccinimide. RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (prepn. of biol. material for implants)			
IT	<b>1892-57-5</b> , 1-Ethyl-3-(dimethylaminopropyl)-carbodiimide. <b>6066-82-6</b> , N-Hydroxysuccinimide <b>82436-78-0</b> , N-Hydroxysulfosuccinimide. RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (prepn. of biol. material for implants)			
RN	1892-57-5 HCAPLUS			
CN	1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX			

NAME)



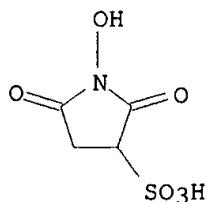
RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



RN 82436-78-0 HCAPLUS

CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)



L21 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:333008 HCAPLUS

DOCUMENT NUMBER: 125:127644

TITLE: Method for obtaining improved image contrast in migration imaging members

INVENTOR(S): Limburg, William W.; Mammino, Joseph; Liebermann, George; Griffiths, Clifford H.; Shahin, Michael M.; Malhotra, Shadi L.; Chen, Liqin; Perron, Marie-Eve

PATENT ASSIGNEE(S): Xerox Corp., USA

SOURCE: U.S., 147 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5514505	A	19960507	US 1995-441360	19950515
CA 2169980	AA	19961116	CA 1996-2169980	19960221
CA 2169980	C	20010424		
JP 08314240	A2	19961129	JP 1996-113456	19960508
EP 743573	A2	19961120	EP 1996-303359	19960514
EP 743573	A3	19970305		
EP 743573	B1	20000906		

R: DE, FR, GB

PRIORITY APPLN. INFO.: US 1995-441360 A 19950515

OTHER SOURCE(S): MARPAT 125:127644

AB Disclosed is a process which comprises (a) providing a migration imaging member comprising (1) a substrate and (2) a softenable layer comprising a softenable material and a photosensitive migration marking material present in the softenable layer as a monolayer of particles situated at or near the surface of the softenable layer spaced from the substrate, (b) uniformly charging the imaging member, (c) imagewise exposing the charged imaging member to activating radiation at a wavelength to which the migration marking material is sensitive, (d) causing the softenable material to soften and enabling a first portion of the migration marking material to migrate through the softenable material toward the substrate in an imagewise pattern while a second portion of the migration marking material remains substantially unmigrated within the softenable layer, and (e) contacting the second portion of the migration marking material with a transparentizing agent which transparentizes the migration marking material.

IC ICM G03G017-10

NCL 430041000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 1484-84-0, 2-Piperidineethanol 1497-17-2 1497-19-4 1499-17-8  
1502-06-3, Cyclodecanone 1530-32-1, Ethyl triphenylphosphonium bromide  
1530-45-6, Carbethoxymethyl triphenylphosphonium bromide 1530-89-8,  
4-Morpholinecarbonitrile 1560-54-9, Allyltriphenylphosphonium bromide  
1572-10-7, 3-Amino-5-phenylpyrazole 1603-91-4, 2-Amino-4-methylthiazole  
1614-12-6, 1-Aminobenzotriazole 1631-25-0 1631-26-1 1632-73-1,  
Fenchyl alcohol 1632-83-3, 1-Methylbenzimidazole 1633-83-6  
1640-39-7, 2,3,3-Trimethylindolenine 1641-40-3 1643-19-2,  
Tetrabutylammonium bromide 1670-81-1, Indole-5-carboxylic acid  
1672-48-6, 6-Amino-5-nitroso-2-thiouracil 1677-27-6,  
3H-1,2-Benzodithiol-3-one 1696-20-4, 4-Acetylmorpholine 1722-10-7,  
3-Chloro-6-methoxypyridazine 1722-12-9, 2-Chloropyrimidine 1725-03-7,  
Oxacyclododecan-2-one 1746-03-8, Vinylphosphonic acid 1750-12-5,  
4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole 1759-28-0,  
4-Methyl-5-vinylthiazole 1774-47-6, Trimethylsulfoxonium iodide  
1779-48-2, Phenylphosphinic acid 1779-49-3, Methyl triphenylphosphonium  
bromide 1779-51-7 1779-58-4, Carbomethoxymethyl triphenylphosphonium  
bromide 1779-81-3, 2-Amino-2-thiazoline 1780-40-1,  
2,4,5,6-Tetrachloropyrimidine 1809-21-8, Dipropylphosphite 1811-28-5  
1812-53-9, Dicetyl dimethyl ammonium chloride 1820-80-0, 3-Aminopyrazole  
1821-52-9, 3-Indolelactic acid 1835-65-0, Tetrafluorophthalonitrile  
1846-76-0, Ethyl-3-coumarincarboxylate 1910-42-5, 1,1'-Dimethyl-4,4'-  
bipyridinium dichloride 1941-19-1, Tetramethylphosphonium chloride  
1941-30-6, Tetrapropyl ammonium bromide 1953-54-4, 5-Hydroxyindole  
2001-45-8, Tetraphenylphosphonium chloride 2002-59-7 2024-83-1,  
3,4-Dimethoxybenzonitrile 2033-24-1, 2,2-Dimethyl-1,3-dioxane-4,6-dione  
2065-66-9, Methyl triphenylphosphonium iodide 2065-67-0,  
Tetraphenylphosphonium iodide 2075-45-8, 4-Bromopyrazole 2085-33-8  
2091-46-5, Propargyltriphenylphosphonium bromide 2114-02-5 2124-55-2,  
Indole-4-carboxylic acid 2127-03-9, Aldrithiol-2 2133-40-6  
2138-24-1, Tetrahexyl ammonium iodide 2142-01-0 2164-83-2,  
4,6-Dihydroxy-5-nitropyrimidine 2170-03-8, Itaconic anhydride  
2179-57-9, Allyldisulfide 2181-42-2, Trimethylsulfonium iodide  
2181-44-4, Trimethylsulfonium methylsulfate 2213-43-6, 1-Aminopiperidine  
2218-94-2, Nitron 2232-08-8 2234-26-6, 2-Norbornanecarbonitrile  
2235-00-9 2254-94-6, 3-Methylbenzothiazole-2-thione 2292-53-7,

Mandelohydroxamic acid 2295-31-0, 2,4-Thiazolidinedione 2301-80-6,  
1,4-Dimethylpyridinium iodide 2304-30-5, Tetrabutylphosphonium chloride  
2328-12-3, 6,7-Dimethoxy-1,2,3,4-tetrahydroisoquinoline hydrochloride  
2349-67-9, 5-Amino-1,3,4-thiadiazole-2-thiol 2380-94-1, 4-Hydroxyindole  
2382-79-8 2386-25-6, 3-Acetyl-2,4-dimethylpyrrole 2390-68-3, Didecyl  
dimethyl ammonium bromide 2426-02-0, 3,4,5,6-Tetrahydrophthalic  
anhydride 2434-53-9, 6-Amino-1-methyluracil 2456-81-7,  
4-Pyrrolidinopyridine 2466-09-3, Pyrophosphoric acid 2466-76-4,  
1-Acetylimidazole 2472-13-1, 6,7-Dimethoxy-2-tetralone **2491-17-0**  
2524-67-6, 4-Morpholinoaniline 2547-66-2, 1,3,5-Tribenzylhexahydro-1,3,5-  
triazine 2556-73-2 2620-50-0, Piperonyl amine 2622-14-2,  
Tricyclohexylphosphine 2637-37-8, 2-Quinolinethiol 2645-22-9,  
Aldrithiol-4 2683-82-1 2700-22-3, Benzylidenemalononitrile  
2740-94-5, 1-Benzyl-3-methyl-2-thiourea 2751-90-8,  
Tetraphenylphosphonium bromide 2758-06-7, 2-Bromoethyl trimethyl  
ammonium bromide 2759-28-6, 1-Benzylpiperazine 2761-13-9 2763-96-4,  
Muscimol 2782-91-4, 1,1,3,3-Tetramethyl-2-thiourea 2784-27-2,  
5-(4-Hydroxyphenyl)-5-phenyl hydantoin 2825-83-4 2851-95-8,  
2-Methyl-1-vinylimidazole 2892-62-8 2938-48-9, 2,2-Dimethylglutaric  
anhydride 2963-78-2, Butyrylcholine chloride 2973-09-3 3001-63-6,  
QUAB 426 3009-13-0, 1-(3-Nitrobenzyloxymethyl)pyridinium chloride  
3010-24-0, M QUAT 32 3012-37-1, Benzylthiocyanate 3073-77-6,  
2-Amino-5-nitropyrimidine 3085-79-8, Methyl tributyl ammonium iodide  
3100-36-5, 8-Cyclohexadecen-1-one 3112-31-0, 3,5-Pyrazoledicarboxylic  
acid 3115-68-2, Tetrabutylphosphonium bromide 3119-93-5,  
3-Ethyl-2-methylbenzothiazolium iodide 3140-73-6, 2-Chloro-4,6-dimethoxy-  
1,3,5-triazine 3162-29-6, 3',4'-(Methylenedioxy)acetophenone  
3189-43-3, Tetracyanoethylene oxide 3194-55-6, 1,2,5,6,9,10-  
Hexabromocyclododecane 3205-94-5, 1-Cyclopentene-1,2-dicarboxylic  
anhydride 3232-84-6, Urazole 3237-50-1, Alloxan monohydrate  
3251-69-2, 4-Imidazoleacetic acid hydrochloride 3323-73-7,  
1-Benzyl-3-hydroxypyridinium chloride 3343-41-7, 2-Pyridyl  
hydroxymethanesulfonic acid 3350-30-9, Cyclononanone 3363-56-2  
3397-62-4 3398-16-1, 4-Bromo-3,5-dimethylpyrazole 3399-67-5,  
2-Aminoethyl trimethyl ammonium chloride hydrochloride 3419-32-7,  
Ethyl-6-methyl-2-oxo-3-cyclohexene-1-carboxylate 3433-37-2,  
2-Piperidinemethanol 3438-48-0, 4-Phenylpyrimidine 3485-84-5  
3493-12-7, (3-Amino-3-carboxypropyl)dimethylsulfonium chloride  
3505-67-7, 1,6-Dioxaspiro[4.4]nonane-2,7-dione 3528-17-4,  
Thiochroman-4-one 3528-58-3, 5-Amino-1-ethylpyrazole 3607-17-8,  
3-Bromopropyl triphenylphosphonium bromide 3641-13-2 3647-69-6,  
4-(2-Chloroethyl)morpholine hydrochloride 3658-48-8,  
Bis(2-ethylhexyl)phosphite 3658-77-3 3674-54-2, Tetrabutylammonium  
thiocyanate 3695-98-5, 1,1,3,3-Propanetetra carbonitrile 3709-18-0,  
2,2,5-Trimethyl-1,3-dioxane-4,6-dione 3724-43-4, Chloromethylene  
dimethyl ammonium chloride 3731-59-7 3740-59-8 3747-74-8  
3764-01-0, 2,4,6-Trichloropyrimidine 3766-55-0, 4-Allyl-3-  
thiosemicarbazide 3785-01-1, 2-[4-(Dimethylamino)styryl]-1-  
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3882-98-2 3934-20-1, 2,4-Dichloropyrimidine 3949-36-8,  
3-Acetylcoumarin 3973-70-4, 1-Amino-4-(2-hydroxyethyl)piperazine  
3977-29-5 4005-51-0, 2-Amino-1,3,4-thiadiazole 4009-98-7,  
(Methoxymethyl)triphenylphosphonium chloride 4024-14-0,  
1-Methyl-2-tetralone 4056-73-9, 2-Acetyl-1,3-cyclohexanedione  
4100-80-5, Methylsuccinic anhydride 4156-16-5 4166-53-4,  
3-Methylglutaric anhydride 4199-89-7, 5-Chloro-1,10-phenanthroline  
4207-56-1, Phenyltrimethylammonium tribromide 4254-29-9, 2-Indanol

4303-88-2, Hemicholinium-15 4316-42-1, 1-Butylimidazole 4317-06-0, Tetraethylphosphonium iodide 4317-07-1, Tetraethylphosphonium bromide 4319-49-7, 4-Aminomorpholine 4328-13-6, Tetrahexylammonium bromide 4363-93-3, 4-Quinolinecarboxaldehyde 4368-51-8, Tetraheptylammonium bromide 4385-35-7, 3-Isochromanone 4394-85-8, 4-Formylmorpholine 4407-40-3, 2,4-Bis(methylthio)-6-chloro-1,3,5-triazine 4421-08-3, 4-Hydroxy-3-methoxybenzonitrile 4421-09-4, 1,3-Benzodioxole-5-carbonitrile 4423-79-4, 1,4-Dioxaspiro[4.5]decan-2-one 4432-31-9, 4-Morpholine ethanesulfonic acid 4433-40-3, 5-(Hydroxymethyl)uracil 4437-20-1, Furfuryldisulfide 4439-02-5, 3,4-(Methylenedioxy)phenylacetone nitrile 4441-17-2, Tripiperidinophosphine oxide 4468-59-1, 4-Hydroxy-3-methoxyphenylacetone nitrile 4480-83-5, Diglycolic anhydride 4519-28-2, Tetramethylphosphonium bromide 4542-47-6, 4-Morpholinepropionitrile 4546-48-9, Methyl-2-phenyl-4-quinolinecarboxylate 4546-95-6, 1H-1,2,3-Triazole-4,5-dicarboxylic acid 4551-69-3, 4-Benzoyl-3-methyl-1-phenyl-2-pyrazolin-5-one 4559-70-0, Diphenylphosphine oxide 4568-71-2, 3-Benzyl-5-(2-hydroxyethyl)-4-methylthiazolium chloride 4593-16-2, 1-Acetyl-3-methylpiperidine 4595-59-9, 5-Bromopyrimidine 4606-65-9, 3-Piperidinemethanol 4663-98-3, 3,4-Pyridinedicarboxamide 4664-01-1, 1H-Pyrrolo[3,4-c]pyridine-1,3(2H)-dione 4664-08-8, Furo[3,4-c]pyridine-1,3-dione 4672-38-2, Propylphosphonic acid 4727-72-4, 1-Benzyl-4-hydroxypiperidine 4730-54-5, 1,4,7-Triazacyclononane 4746-97-8, 1,4-Cyclohexanedione monoethylene ketal 4762-26-9, Hexyl triphenylphosphonium bromide 4774-14-5, 2,6-Dichloropyrazine 4807-55-0, Methylrhodanine 4812-14-0, 3-Pyridyl hydroxymethanesulfonic acid 4814-74-8 4847-93-2 4897-50-1, 4-Piperidinopiperidine 4904-61-4, 1,5,9-Cyclododecatriene 4916-57-8, 1,2-Bis(4-pyridyl)ethane 4940-11-8 4965-17-7, Tetrapentyl ammonium chloride 4975-73-9 5019-82-9, Bicyclo[3.2.1]octan-2-one 5022-29-7 5034-06-0, Trimethylsulfoxonium chloride 5036-48-6, 1H-Imidazole-1-propanamine 5044-52-0, Vinyltriphenylphosphonium bromide 5049-61-6, Aminopyrazine 5086-74-8 5086-74-8, (2,3,5,6-Tetrahydro-6-phenylimidazo[2,1-b]thiazole hydrochloride 5103-42-4 5108-96-3  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(transparentizing agent for electrophotog. migration imaging members)  
IT 5137-55-3, Tricapryl methyl ammonium chloride 5142-22-3, 1-Methyladenine 5142-23-4, 3-Methyladenine 5154-02-9, 1,5-Isoquinolinediol 5157-08-4 5197-95-5, Benzyl triethyl ammonium bromide 5222-73-1, 3,4-Dimethoxy-3-cyclobutene-1,2-dione 5231-87-8 5240-72-2, 2-Norbornane methanol 5293-84-5, Chloromethyl triphenylphosphonium chloride 5327-10-6 5334-23-6 5348-51-6, 2-Hydroxy-4-methylpyrimidine hydrochloride 5350-41-4, Benzyl trimethyl ammonium bromide 5350-96-9, 4-Nitrobenzyl trimethyl ammonium chloride 5381-99-7 5394-18-3 5394-63-8 5395-04-0, Bis(pentamethylene)urea 5417-82-3, (1-Ethoxyethylidene)malononitrile 5418-11-1 5418-63-3 5418-95-1, 2-Guanidinobenzimidazole 5424-21-5, 2,4-Dichloro-6-methylpyrimidine 5425-44-5, 2-Phenyl-1,3-dithiane 5427-26-9, 5-Hydantoin acetic acid 5428-64-8, Pentaquine phosphate 5431-44-7, 2,6-Pyridine dicarboxaldehyde 5440-00-6 5452-83-5, 2-(2-Piperidinoethyl)pyridine 5453-80-5, 5-Norbornene-2-carboxaldehyde 5460-29-7 5464-79-9, 2-Amino-4-methoxybenzothiazole 5467-94-7 5518-52-5, Tri-2-furylphosphine 5521-55-1, 5-Methyl-2-pyrazinecarboxylic acid 5535-48-8, Phenylvinylsulfone 5538-94-3, Dioctyl dimethyl ammonium chloride 5579-84-0, 2-(2-Methylaminoethyl)Pyridine dihydrochloride 5585-96-6, 4-Indolyl acetate 5600-21-5, 2-Amino-4-chloro-6-methylpyrimidine 5614-64-2, 2-Amino-6,8-dihydroxypurine 5617-74-3,

3-Oxabicyclo[3.1.0]hexane-2,4-dione 5662-95-3, 3,3-Tetramethyleneglutaric anhydride 5732-44-5, 1,4-Butanediolcyclic sulfate 5807-14-7 5832-55-3 5922-92-9, Tetrahexylammonium chloride 5926-51-2, Bromomaleic anhydride 5932-53-6 5950-69-6, Hydrindantin dihydrate 5993-91-9 6018-41-3, Methylcoumalate 6020-54-8 6028-07-5, Harmalol hydrochloride 6035-45-6 6048-29-9, Phenacyl triphenylphosphonium bromide 6055-19-2, Cyclophosphamide monohydrate 6056-35-5 **6066-82-6** 6119-47-7 6126-22-3 6136-37-4, 1-Methylxanthine 6153-44-2, Methylorotate 6159-05-3, 1,1'-Diheptyl-4,4'-bipyridinium dibromide 6160-12-9, Sparteine sulfate pentahydrate 6164-78-9, 2,3-Pyrazinedicarboxamide 6209-44-5, 5-Nitrobarbituric acid trihydrate 6224-63-1, Tri-m-tolylphosphine 6228-25-7, 1,3-Dioxane-5,5-dimethanol 6228-47-3 6236-05-1, Nifuroxime 6238-13-7, 3-Quinuclidinol hydrochloride 6249-56-5, 3-Carboxypropyl trimethyl ammonium chloride 6266-23-5, 1-(Carboxymethyl)pyridinium chloride 6272-74-8 6281-14-7, 1,3,5-Tricyclohexylhexahydro-1,3,5-triazine 6302-94-9 6307-35-3, 2-Amino-5-bromo-6-methyl-4-pyrimidinol 6317-18-6, Methylene dithiocyanate 6318-55-4 6320-15-6, 6-Chloro-2,4-dimethoxypyrimidine 6351-10-6, 1-Indanol 6372-40-3, Isopropylidiphenyl phosphine 6425-32-7, 3-Morpholino-1,2-propanediol 6476-37-5, Dicyclohexylphenyl phosphine 6480-68-8, 3-Quinolinecarboxylic acid 6530-09-2, 3-Aminoquinuclidine dihydrochloride 6571-43-3, 2,3-Cyclododecenopyridine 6573-11-1, 1,4,7-Trithiacyclononane 6591-63-5, Quinidine sulfate dihydrate 6609-64-9, 2-Chloro-1,3,2-dioxaphospholane-2-oxide 6624-49-3, 3-Isoquinolinecarboxylic acid 6628-04-2, 4-Aminoquinaldine 6635-41-2, 2-Nitrobenzaldehyde oxime 6707-12-6, 5-Norbornene-2,2-dimethanol 6737-42-4, 1,3-Bis(diphenylphosphino)propane 6928-85-4, 1-Amino-4-methylpiperazine 6953-60-2 6959-47-3, 2-(Chloromethyl)pyridine hydrochloride 6959-66-6, 2-Mercapto-4-methylpyrimidine hydrochloride 6965-01-1 6967-12-0, 6-Aminoindazole 6968-75-8 6970-56-5 6994-25-8, 3-Amino-4-carbethoxypyrazole 7036-61-5, Propyl-1-(1-phenylethyl)imidazole-5-carboxylate hydrochloride 7065-23-8 7068-55-5 7083-71-8, Emetine dihydrochloride **hydrate** 7119-95-1, 1-Nitropyrazole 7144-05-0, 4-(Aminomethyl)piperidine 7145-99-5, 3,4-(Methylenedioxy)toluene 7164-43-4, 5-Aminoortotic acid 7173-51-5, BIO-DAC 7173-54-8, Tridodecylmethylammonium chloride 7182-08-3, 1-Morpholino-1-cycloheptene 7203-96-5 7205-98-3, Chloromethylphenylsulfone 7209-38-3, 1,4-Bis(3-aminopropyl)piperazine 7237-34-5, 2-Hydroxyethyl triphenylphosphonium bromide 7250-67-1, 1-(2-Chloroethyl)pyrrolidine hydrochloride 7259-44-1, Norharman hydrochloride 7281-04-1, Benzyl dodecyl dimethylammonium bromide 7325-46-4, 1,4-Benzenediacetic acid 7333-63-3, 4-Bromobutyl triphenylphosphonium bromide 7336-51-8, 2-Acetamido-4-methylthiazole 7364-25-2, 3-Indazolinone 7368-65-2, Tetraethylphosphonium chloride 7459-75-8, 3,6-Diaminoacridine hydrochloride 7519-74-6, Thiocamphor 7531-52-4 7569-26-8 7648-01-3, 3-Ethylrhodanine 7650-89-7, Tribenzylphosphine 7673-09-8, Trichloromelamine 7752-82-1, 2-Amino-5-bromopyrimidine 7757-83-7, Sodium sulfite 7779-27-3, 1,3,5-Triethylhexahydro-1,3,5-triazine 7797-83-3, 2,3-(Methylenedioxy)benzaldehyde 10212-25-6, Cyclocytidine hydrochloride 10247-90-2, Tetraheptylammonium chloride 10310-21-1, 2-Amino-6-chloropurine 10333-11-6 10342-85-5, 4'-Piperidinoacetophenone 10357-84-3, 2,6-Dihydroxypyridine hydrochloride 10361-16-7, BTC812 10444-89-0, 2-Amino-5-trifluoromethyl-1,3,4-thiadiazole 10450-69-8, Oleyl trimethyl ammonium chloride 10513-45-8 10534-59-5, Tetrabutylammonium acetate 10574-66-0, 3-Ethyl-2-thioxo-4-

oxazolidinone 10589-94-3, Dimethyl 3,7,12,17-tetramethyl-21oH,23oH-porphine-2,18-dipropionate 10591-31-8 13020-83-2, Purin-6-yltrimethylammonium chloride 13031-04-4 13078-30-3, 5-Anilino-1,2,3,4-thiatriazole 13149-00-3 13239-97-9 13327-27-0 13380-94-4 13395-71-6 13414-95-4 13492-21-2 13575-75-2, 6,7-Dimethoxy-1-tetralone 13618-91-2, 4,5,6,7-Tetrahydroindole 13621-25-5, 5,7-Dimethyl-1-tetralone 13621-47-1 13678-67-6 13678-68-7 13744-68-8 13750-62-4, 1-Benzyl-2-methylimidazole 13754-19-3, 4,5-Diaminopyrimidine 13808-64-5, 4-Bromo-3-methylpyrazole 13889-98-0, 1-Acetylpiperazine 13957-31-8, 4-Thiouridine 14068-53-2 14098-24-9, Benzo-18-crown-6 14098-44-3, Benzo-15-crown-5 14099-81-1, 1,2,3,4-Tetrahydroisoquinoline hydrochloride 14114-05-7, Cyclopropyl triphenylphosphonium bromide 14134-79-3, 3,3'-Dimethyloxacarbocyanine iodide 14161-11-6, 3,4,5-Trichloropyridazine 14173-30-9, 3-Hydroxy-2-(hydroxymethyl)pyridine hydrochloride 14174-08-4, Benzo-12-crown-4 14174-09-5, Dibenzo-24-crown-8 14187-32-7, Dibenzo-18-crown-6 14268-66-7, 3,4-(Methylenedioxy)aniline 14337-43-0, Ethylchlorooximido acetate 14338-32-0, 2-Chloro-1-methylpyridinium iodide 14492-68-3, Emcol E-607S 14667-55-1, 2,3,5-Trimethylpyrazine 14668-38-3 14678-02-5, 5-Amino-3-methylisoxazole 14866-33-2, Tetraoctylammonium bromide 14866-34-3, Tetradodecyl ammonium bromide 14866-42-3, Stearyltributylphosphonium bromide 14901-16-7 14937-42-9, Tetrakisdecylammonium bromide 14937-45-2, Hexadecyltributylphosphonium bromide 15328-32-2, 1H-Benzotriazole-1-carbonitrile 15341-08-9 15439-16-4, 1,4,8,12-Tetraazacyclopentadecane 15454-54-3, 5-Aminotetrazole monohydrate 15471-17-7 15733-83-2, 4-Methoxy-2-quinolinecarboxylic acid 15788-16-6, 5-Benzimidazolecarboxylic acid 15804-19-0, 2,3-Dihydroxyquinoxaline 15988-11-1, 4-Phenylurazole 16056-11-4, Phenyl trimethyl ammonium bromide 16069-36-6 16096-32-5, 4-Methylindole 16135-41-4, 6,7-Dimethoxy-3-isochromanone 16179-97-8, 2-Pyridylacetic acid hydrochloride 16311-69-6, 3,4-Dimethyl-5-(2-hydroxyethyl)thiazolium iodide 16489-90-0, 6-Ethoxy-1,2,3,4-tetrahydro-2,2,4-trimethylquinoline 16617-46-2, 3-Amino-4-pyrazolecarbonitrile 16691-43-3 16731-68-3, 2-Undecylimidazole 16834-13-2 16841-14-8, INCROQUAT BEHENYL BDQ/P 16849-88-0 16898-52-5, 4,4'-Trimethylenedipiperidine 17216-08-9, 2-Acetyl-1-tetralone 17252-51-6 17301-53-0, Behenyl trimethyl ammonium chloride 17347-61-4, 2,2-Dimethylsuccinic anhydride 17354-79-9 17441-67-7, Bicyclo[2.2.2]oct-5-ene-2,3-dimethanol 17455-13-9, 1,4,7,10,13,16-Hexaoxacyclooctadecane 17455-23-1 17455-25-3, Dibenzo-30-crown-10 17577-28-5, (Ethoxycarbonylmethyl)triphenylphosphonium chloride 17692-39-6, Fomocaine 17760-91-7 17872-92-3 18042-62-1 18073-84-2

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(transparentizing agent for electrophotog. migration imaging members)

IT 2491-17-0 6066-82-6

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(transparentizing agent for electrophotog. migration imaging members)

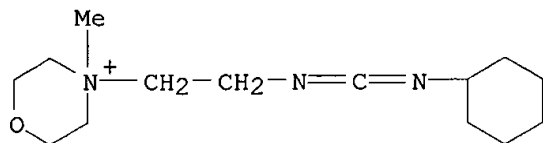
RN 2491-17-0 HCAPLUS

CN Morpholinium, 4-[2-[(cyclohexylcarbonimidoyl)amino]ethyl]-4-methyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 20702-21-0

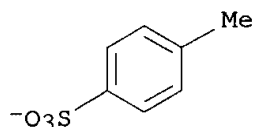
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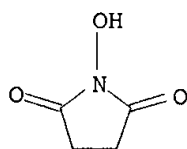
CRN 16722-51-3

CMF C7 H7 O3 S



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



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ACCESSION NUMBER: 1995:921925 HCAPLUS

DOCUMENT NUMBER: 123:334349

TITLE: Phenylboronic acid complexes

INVENTOR(S): Stolowitz, Mark L.

PATENT ASSIGNEE(S): Prolinx, Inc., USA

SOURCE: PCT Int. Appl., 65 pp.

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DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

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WO 9520591	A1	19950803	WO 1995-US1004	19950127
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MX, NL, NO, NZ, PL, PT, RO, RU, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,				

## TD, TG

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AU 702017	B2	19990211		
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EP 741734	B1	20010404		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE

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US 5677431	A	19971014	US 1995-482886	19950607
US 5852178	A	19981222	US 1995-577068	19951222
US 6008406	A	19991228	US 1997-805451	19970225

## PRIORITY APPLN. INFO.:

US 1994-188460	A	19940128
US 1994-188531	A	19940128
US 1994-188958	A	19940128
US 1994-189176	A	19940128
WO 1995-US1004	W	19950127
US 1995-488193	B1	19950607

## OTHER SOURCE(S): MARPAT 123:334349

AB The invention provides novel bioconjugate complexes linking two bioactive species (which may be the same or different) wherein the linkage comprises at least one boron atom, e.g., at least one phenylboronic acid complex. The bioconjugate complex of the invention is preferably a compd. of the general formula BAS-L-Bc-L'-(Bc'-L')<sub>n</sub>-BAS', wherein BAS and BAS' are bioactive species (which may be the same or different); L, L', and L' are linkers (which may be the same or different); Bc and Bc' are phenylboronic acid complexes (which may be the same or different) of formula D-E or E-D wherein D is a phenylboronic acid moiety and E is a phenylboronic acid complexing moiety, and n is 0 or 1. Also provided are reagents and semiconjugates for making the bioconjugate complexes of the invention and kits and methods utilizing the bioconjugate complexes of the invention.

IC ICM C07F005-02

ICS G01N033-53; G01N033-72

CC 9-14 (Biochemical Methods)

Section cross-reference(s): 6, 29

IT 51-85-4 56-12-2, 4-Aminobutanoic acid, reactions 60-24-2, 2-Mercaptoethanol 60-32-2, 6-Aminohexanoic acid 64-17-5, Ethanol, reactions 65-49-6, 4-Aminosalicylic acid 67-56-1, Methanol, reactions 69-72-7, reactions 74-89-5, Methylamine, reactions 79-04-9, Chloroacetyl chloride 79-22-1, Methyl chloroformate 89-57-6, 5-Aminosalicylic acid 90-02-8, reactions 108-30-5, Succinic anhydride, reactions 108-31-6, 2,5-Furandione, reactions 110-60-1, 1,4-Butanediamine 111-50-2, Adipoyl chloride 118-93-4 119-80-2, Dithiosalicylic acid 124-09-4, 1,6-Hexanediamine, reactions 524-38-9, N-Hydroxyphthalimide **530-62-1**, 1,1'-Carbonyldiimidazole **538-75-0**, Dicyclohexylcarbodiimide 541-59-3, 1H-Pyrrole-2,5-dione 543-20-4, Succinyl chloride 593-56-6, Methoxylamine hydrochloride 832-53-1, Pentafluorobenzenesulfonyl chloride 1002-18-2 1074-82-4, Potassium phthalimide 1490-25-1, 3-Carbomethoxypropionyl chloride 1648-99-3, 2,2,2-Trifluoroethanesulfonyl chloride **1892-57-5**, 1-Ethyl-3-3-dimethylaminopropylcarbodiimide 2127-03-9, 2,2'-Dithiodipyridine

2637-34-5, 2-Thiopyridone 2645-22-9, 4,4'-Dithiodipyridine 3483-12-3,  
 Dithiothreitol 4282-19-3 4349-62-6, 2-Benzyloxybenzoyl chloride  
 5197-62-6, 2-2-2-Chloroethoxyethoxyethanol 5538-51-2, 2-Acetoxybenzoyl  
 chloride **6066-82-6**, N-Hydroxysuccinimide 6539-14-6,  
 2-Iminothiolane 7664-41-7, Ammonia, reactions 7803-49-8,  
 Hydroxylamine, reactions 7803-57-8, Hydrazine **hydrate**  
 10027-07-3, Suberoyl chloride 10387-40-3, Potassium thioacetate  
 13094-51-4, Bromoacetic anhydride 13887-98-4 14047-29-1,  
 4-Carboxyphenylboronic acid 14273-90-6, Methyl 6-bromohexanoate  
 15486-96-1, 3-Bromopropionyl chloride 19829-29-9, 4-Thiopyridone  
 22118-09-8, Bromoacetyl chloride 26555-40-8, Methoxycarbonylsulfonyl  
 chloride 26763-71-3, Toluenesulfonyl chloride 28088-64-4,  
 Aminosalicyclic acid 30418-59-8, 3-Aminophenylboronic acid 31255-25-1  
 36839-55-1, 1,2-Bis-2-iodoethoxyethane 38020-81-4, Iodoacetyl chloride  
 38240-29-8, 3-Nitro-2-mercaptopyridine 41518-22-3, 3-Iodopropionyl  
 chloride 51857-17-1 54907-61-8, Iodoacetic anhydride 68076-36-8  
 68181-17-9 76931-93-6 78887-30-6 87199-19-7, 3-  
 Iodoacetamidophenylboronic acid 89992-70-1, 2-Cyanoethyl-N,N-  
 diisopropylchlorophosphoramidite 133887-74-8 136537-21-8 170368-31-7  
 170368-32-8 170368-43-1 170516-53-7

RL: RCT (Reactant); RACT (Reactant or reagent)

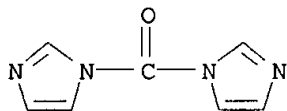
(phenylboronic acid complexes prepn. for conjugation of biol.  
 macromols. and biopolymers)

IT **530-62-1**, 1,1'-Carbonyldiimidazole **538-75-0**,  
 Dicyclohexylcarbodiimide **1892-57-5**, 1-Ethyl-3-3-  
 dimethylaminopropylcarbodiimide **6066-82-6**, N-Hydroxysuccinimide  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(phenylboronic acid complexes prepn. for conjugation of biol.  
 macromols. and biopolymers)

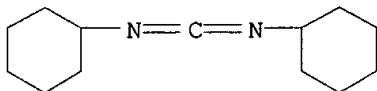
RN 530-62-1 HCAPLUS

CN 1H-Imidazole, 1,1'-carbonylbis- (9CI) (CA INDEX NAME)



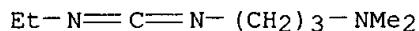
RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



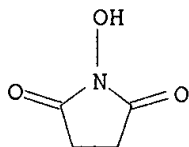
RN 1892-57-5 HCAPLUS

CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1995:553799 HCAPLUS

DOCUMENT NUMBER: 123:131326

TITLE: Specific immobilization of electropolymerized polypyrrole thin films onto interdigitated microsensor electrode arrays

AUTHOR(S): Guiseppi-Elie, A.; Wilson, A. M.; Tour, J. M.; Brockmann, T. W.; Zhang, P.; Allara, D. L.

CORPORATE SOURCE: Research and Development Department, AAI-ABTECH, Yardley, AR, 19067, USA

SOURCE: Langmuir (1995), 11(5), 1768-76

CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

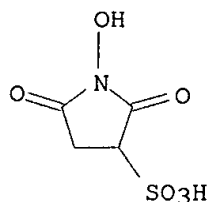
AB Electroactive polypyrrole (PPy) thin films were grown by potentiostatic electropolymerization at chemically derivatized interdigitated microsensor electrodes (IMEs) of gold on borosilicate glass leading to specific adhesion of the electroconductive polymer film to the device. Films were grown to a constant electropolymerization charge density of 70 mC/cm<sup>2</sup> at 0.65 V vs. Ag<sup>0</sup>/AgCl, 3 M Cl<sup>-</sup> from 1.0 M aq. pyrrole solutions containing 2.5 mM poly(styrenesulfonic acid) (PSSA) and 2.5 mM dodecylbenzylsulfonate with the pH adjusted to 3.0 and the temperature maintained at 20 degrees. The interdigit space of the IME devices was chemically derivatized by chemical modification with (3-aminopropyl)trimethoxysilane followed by direct linking of the primary amine to the carboxylic acid of 3-(1-pyrrolyl)propionic acid using the heterobifunctional linker 1,3-diisopropylcarbodiimide enhanced with N-hydroxysulfosuccinimide in aqueous solution. XPS evidence supports the immobilization of omega-(1-pyrrolyl) moieties to the device surface. The 3-(1-pyrrolyl)propionic acid is electroactive, electropolymerizable, and coelectropolymerizable with pyrrole monomer from aqueous solution. Electroconductive PPy films grown on these omega-(1-pyrrolyl) derivatized IME devices were allowed to bridge the interdigit space and so pyrrole monomer was coelectropolymerized with omega-(1-pyrrolyl) moieties specifically attached to the interdigit space of the device. This leads to specific adhesion of the PPy thin film to the device surface. Films grown in this way were compared to films similarly grown on unmodified devices, on IME devices rendered hydrophobic by chemical modification with dodecyltrichlorosilane, and on devices modified with (3-aminopropyl)trimethoxysilane. Cyclic voltammetry revealed no significant difference in the electroactivity of PPy films grown on these various IME surfaces. Films were also characterized by the time to adhesive failure using the Scotch tape test following immersion in PBKCl 7.2 buffer or after being maintained **dry** under vacuum and over desiccating molecular sieves. The time to adhesive failure in both test environments occurred in the order unmodified < dodecyltrichlorosilane modified **mchlt**.

(3-aminopropyl)trimethoxysilane modified .mchlt. .omega.-(1-pyrrolyl) derivatized. The failure times were 3 days < 5 days .mchlt. 27 days .mchlt. 235+ days for films immersed in aq. buffer and were 3 days < 36+ days .mchlt. 235+ days .mchlt. 235+ days for films stored **dry** under vacuum. The electrochem. and adhesion test evidence suggest that the PPy films are specifically immobilized to the .omega.-(1-pyrrolyl) derivatized IME devices and that this negates the hydrolytic instability of the PPy/glass interface that leads to poor adhesion under physiol. conditions.

CC 79-2 (Inorganic Analytical Chemistry)  
 IT **693-13-0**, 1,3-Diisopropylcarbodiimide 4484-72-4,  
 Dodecyltrichlorosilane 13822-56-5, (3-Aminopropyl)trimethoxysilane  
 32857-62-8, (.alpha.,.alpha.,.alpha.-Trifluoro-p-tolyl)acetic acid  
**82436-78-0**, N-Hydroxysulfosuccinimide  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (in specific immobilization of electropolymd. polypyrrole thin films  
 onto interdigitated microsensor electrode arrays)  
 IT **693-13-0**, 1,3-Diisopropylcarbodiimide **82436-78-0**,  
 N-Hydroxysulfosuccinimide  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (in specific immobilization of electropolymd. polypyrrole thin films  
 onto interdigitated microsensor electrode arrays)  
 RN 693-13-0 HCAPLUS  
 CN 2-Propanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)

i-Pr-N=C=N-Pr-i

RN 82436-78-0 HCAPLUS  
 CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)



L21 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1993:87614 HCAPLUS  
 DOCUMENT NUMBER: 118:87614  
 TITLE: Water-insoluble derivatives of polyanionic  
 polysaccharides as surgical adhesion inhibitors and  
 matrixes for sustained-release drugs  
 INVENTOR(S): Miller, Robert; Burns, James W.; Xu, Xuejian  
 PATENT ASSIGNEE(S): Genzyme Corp., USA  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9220349	A1	19921126	WO 1992-US4212	19920519
W: AU, CA, FI, JP, NO				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
US 6174999	B1	20010116	US 1992-833973	19920211
AU 9221434	A1	19921230	AU 1992-21434	19920519
AU 670030	B2	19960704		
EP 587715	A1	19940323	EP 1992-912424	19920519
EP 587715	B1	20020925		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06508169	T2	19940914	JP 1992-500263	19920519
AT 224916	E	20021015	AT 1992-912424	19920519
JP 3425147	B2	20030707	JP 1993-500263	19920519
PRIORITY APPLN. INFO.:			US 1991-703254	A 19910520
			US 1992-833973	A 19920211
			US 1987-100104	A2 19870918
			US 1990-543163	A2 19900625
			WO 1992-US4212	A 19920519
AB	<p>Polyanionic polysaccharides, such as CMC, hyaluronic acid, heparin, chondroitin-6-sulfate and dermatan sulfate, are rendered water-insol. by treatment with a nucleophile, an activating agent and, optionally, a modifying agent. The nucleophile is an amino acid or a salt, amide or ester thereof, an amino alc., aminothiol, peptide, protein, etc. The activating agent is 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide-HCl (EDC), a phosphonium hexafluorophosphate, etc. The modifying agent is 1-hydroxybenzotriazole-H<sub>2</sub>O, N-hydroxysulfosuccinimide, 4-nitrophenol, etc. The products are films, gels or foams, which retain their strength even when <b>hydrated</b>. They are useful for preventing postoperative membrane adhesion or as matrixes for sustained-release drugs. A Na hyaluronate hydrogel was prep'd., using EDC as activating agent and leucine Me ester-HCl as nucleophile.</p>			
IC	ICM A61K031-725			
CC	ICS A61K031-715; A61K031-70; C07H001-00			
IT	<p>63-5 (Pharmaceuticals)</p> <p>62-53-3D, Aniline, reaction products with polyanionic polysaccharides</p> <p>63-84-3D, reaction products with polyanionic polysaccharides 71-00-1D,</p> <p>Histidine, reaction products with polyanionic polysaccharides 87-86-5D,</p> <p>Pentachlorophenol, reaction products with polyanionic polysaccharides</p> <p>88-75-5D, 2-Nitrophenol, reaction products with polyanionic polysaccharides 100-02-7D, 4-Nitrophenol, reaction products with polyanionic polysaccharides 109-55-7D, 3-Dimethylaminopropylamine, reaction products with polyanionic polysaccharides 156-87-6D, 3-Amino-1-propanol, reaction products with polyanionic polysaccharides 288-32-4D, Imidazole, reaction products with polyanionic polysaccharides 616-34-2D, Glycine methyl ester, reaction products with polyanionic polysaccharides 771-61-9D, Pentafluorophenol, reaction products with polyanionic polysaccharides 1122-58-3D, 4-Dimethylaminopyridine, reaction products with polyanionic polysaccharides 1849-36-1D, 4-Nitrothiophenol, reaction products with polyanionic polysaccharides <b>1892-57-5D</b>, reaction products with polyanionic polysaccharides 2133-40-6D, L-Proline methyl ester hydrochloride, reaction products with polyanionic polysaccharides 2743-40-0D, L-Leucine ethyl ester hydrochloride, reaction products with polyanionic polysaccharides 2748-02-9D, L-Leucine tert-butyl ester hydrochloride, reaction products with polyanionic polysaccharides 4875-10-9D, 2-Nitrothiophenol, reaction</p>			

products with polyanionic polysaccharides **6066-82-6D**,  
 N-Hydroxysuccinimide, reaction products with polyanionic polysaccharides  
 6306-52-1D, L-Valine methyl ester hydrochloride, reaction products with  
 polyanionic polysaccharides 7084-11-9D, reaction products with  
 polyanionic polysaccharides 7517-19-3D, Leucine methyl ester  
 hydrochloride, reaction products with polyanionic polysaccharides  
 7524-50-7D, L-Phenylalanine methyl ester hydrochloride, reaction products  
 with polyanionic polysaccharides 9004-32-4D, Carboxymethyl cellulose,  
 derivs. 9004-61-9D, Hyaluronic acid, derivs. 9005-49-6D, Heparin,  
 derivs. 9005-49-6D, Heparin, reaction products 9067-32-7D, Sodium  
 hyaluronate, derivs. 12768-31-9D, Carboxymethylamylose, derivs.  
 13079-20-4D, Leucinamide, reaction products with polyanionic  
 polysaccharides 18598-74-8D, L-Isoleucine methyl ester hydrochloride,  
 reaction products with polyanionic polysaccharides 22888-59-1D,  
 L-Arginine methyl ester hydrochloride, reaction products with polyanionic  
 polysaccharides 22888-60-4D, L-Histidine methyl ester hydrochloride,  
 reaction products with polyanionic polysaccharides 24967-94-0D, derivs.  
 25322-46-7D, Chondroitin-6-sulfate, derivs. 27988-97-2D, Tetrazole,  
 reaction products with polyanionic polysaccharides 50296-37-2D, reaction  
 products with polyanionic polysaccharides 56602-33-6D, reaction products  
 with polyanionic polysaccharides **82436-78-0D**,  
 N-Hydroxysulfosuccinimide, reaction products with polyanionic  
 polysaccharides 94790-37-1D, reaction products with polyanionic  
 polysaccharides 123333-53-9D, reaction products with polyanionic  
 polysaccharides 132705-51-2D, reaction products with polyanionic  
 polysaccharides 138551-31-2D, reaction products with polyanionic  
 polysaccharides

RL: BIOL (Biological study)

(insol. biocompatible films and foams and gels, for surgery and drug  
 formulations)

IT **1892-57-5D**, reaction products with polyanionic polysaccharides  
**6066-82-6D**, N-Hydroxysuccinimide, reaction products with  
 polyanionic polysaccharides **82436-78-0D**, N-  
 Hydroxysulfosuccinimide, reaction products with polyanionic  
 polysaccharides

RL: BIOL (Biological study)

(insol. biocompatible films and foams and gels, for surgery and drug  
 formulations)

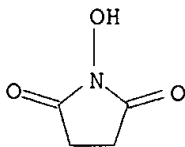
RN 1892-57-5 HCAPLUS

CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl- (9CI) (CA INDEX  
 NAME)

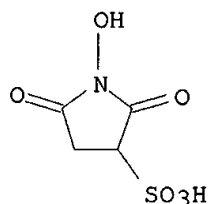
Et-N=C=N-(CH<sub>2</sub>)<sub>3</sub>-NMe<sub>2</sub>

RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



RN 82436-78-0 HCAPLUS  
 CN 3-Pyrrolidinesulfonic acid, 1-hydroxy-2,5-dioxo- (9CI) (CA INDEX NAME)

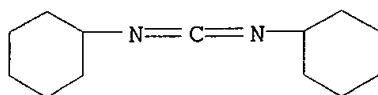


L21 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1989:73857 HCAPLUS  
 DOCUMENT NUMBER: 110:73857  
 TITLE: Magnetized physiological substances and their preparation  
 INVENTOR(S): Inada, Yuji; Tamaura, Yutaka; Takahashi, Katsunobu  
 PATENT ASSIGNEE(S): Bihamma, Hisaharu, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

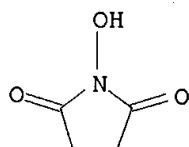
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63091081	A2	19880421	JP 1986-235986	19861003
PRIORITY APPLN. INFO.:			JP 1986-235986	19861003

AB Physiol. substances are modified with a lipophilic mol. through which magnetic substances are further bound to form a complex. The resulting conjugates can be recovered from bioreactors, without sacrificing their activities, using a magnetic field. 1,10-Decanedicarboxylic acid 4.6 and N-hydroxysuccinic acid imide 2.3 g dissolved in dioxane 80 mL was mixed with dicyclohexylcarboxyimide. This soln. was used to modify Pseudomonas fluorescens lipase. Modified lipase 93 mg was reacted with a 0.1-mL soln. contg. FeCl3 13 and FeCl2 30 mg, and freeze-dried to obtain the magnetized lipase complex. The complex, which contained the magnetic substance 30 and protein 55%, was stably dispersed in an org. solvent such as benzene (the activity for synthesizing lauryl laurate in benzene was 15 .mu. mol/h/mg protein) and was easily recovered from the reaction mixt. using a magnetic field of 2000 Oe.

IC ICM C12N011-00  
 CC 16-1 (Fermentation and Bioindustrial Chemistry)  
 Section cross-reference(s): 7  
 IT **538-75-0** 693-23-2, Dodecanedioic acid **6066-82-6**  
 RL: BIOL (Biological study)  
 (lipase modified with, reaction of magnetic substances with)  
 IT **538-75-0 6066-82-6**  
 RL: BIOL (Biological study)  
 (lipase modified with, reaction of magnetic substances with)  
 RN 538-75-0 HCAPLUS  
 CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



L21 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1979:50068 HCAPLUS

DOCUMENT NUMBER: 90:50068

TITLE: A photoaffinity labeling study of the messenger RNA-binding region of Escherichia coli ribosomes

AUTHOR(S): Towbin, Harry; Elson, David

CORPORATE SOURCE: Biochem. Dep., Weizmann Inst. Sci., Rehovot, Israel

SOURCE: Nucleic Acids Research (1978), 5(9), 3389-407

CODEN: NARHAD; ISSN: 0305-1048

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A photoaffinity labeling study of the mRNA-binding region of E. coli ribosomes was made, using oligoadenylic acids as mRNA analogs. The oligonucleotides, of chain length 6-8, carried a radioactive photolabile arom. azide reagent bound covalently to the 3'-terminal ribose moiety. The synthesis of the reagent, p-azidobenzoyl glycyhydrazide-2-3H<sub>2</sub>, is described. The derivatized oligonucleotides were functional messengers. They stimulated the binding of the cognate aminoacyl-tRNA, lysyl-tRNA; their binding was reciprocally stimulated by lysyl-tRNA; and they competed with underivatized oligoadenylates for ribosomal binding sites. When the 70 S ribosomal binding complex was irradiated, the photolabile reagent reacted covalently with both RNA and proteins of the 30 S subunit and with tRNA, but not with the 50 S subunit. The 16 S rRNA appeared to be labeled at >1 site. Of the proteins, S3 and S5 reacted with the reagent with high specificity; S4 may have been labeled to a minor degree. The results indicate that S3 and S5 not only affect the decoding process as has been previously reported, but are also located in the mRNA-binding region of the ribosome, presumably to the 3'-side of the decoding site.

CC 6-13 (General Biochemistry)

IT 68922-88-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of and reaction with hydrazine hydrate)

IT 6066-82-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with azidobenzoic acid and dicyclohexylcarbodiimide)

IT 538-75-0

RL: RCT (Reactant); RACT (Reactant or reagent)

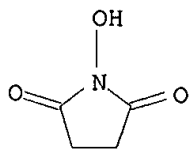
(reaction of, with hydroxysuccinimide and azidobenzoic acid)

IT 6066-82-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with azidobenzoic acid and dicyclohexylcarbodiimide)

RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

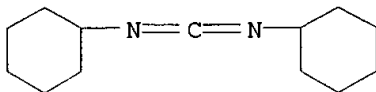


IT 538-75-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with hydroxysuccinimide and azidobenzoic acid)

RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



L21 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1966:438784 HCAPLUS

DOCUMENT NUMBER: 65:38784

ORIGINAL REFERENCE NO.: 65:7267e-h,7268a-h,7269a-b

TITLE: Synthesis of peptides with N-acyl-dipeptide  
1-hydroxypiperidine estersAUTHOR(S): Weygand, Friedrich; Koenig, Wolfgang; Nintz, Eckhardt;  
Hoffmann, Dieter; Huber, Peter; Khan, Nur Muhammad;  
Prinz, Wolfgang

CORPORATE SOURCE: Tech. Hochsch., Munich, Germany

SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische  
Chemie, Organische Chemie, Biochemie, Biophysik,  
Biologie (1966), 21(4), 325-31  
CODEN: ZENBAX; ISSN: 0044-3174

DOCUMENT TYPE: Journal

LANGUAGE: German

AB A series of amino acid 1-hydroxypiperidine ester HCl salts (I) was prepd. from the appropriate amino acid N-carboxylic acid anhydride (Leuchs anhydride) (II) with 1-hydroxypiperidine-HCl (III) in CHCl<sub>3</sub> and converted by various methods to the corresponding N-acyldipeptide 1-hydroxypiperidine esters (IV). The subsequent reaction of the IV with amino acid Me ester HCl salt in the presence of AcONa yielded the corresponding N-acyltripeptide Me esters (V). The advantage of this method is the avoidance of free dipeptide esters and the racemization-free synthesis of the V. The appropriate II (0.010 mole) in 20 cc. CHCl<sub>3</sub> treated at room temp. with 0.01 mole III in 20 cc. CHCl<sub>3</sub> and refrigerated several hrs. deposited the corresponding I which decomp. from 130.degree. with yellowing and blackening above 200.degree.. In this manner were prepd. the following I (amino acid of I, % yield, [.alpha.]<sub>D</sub><sup>20</sup>, and c in MeOH given): L-alanine, 66, --,--; L-valine, 83.5, 11.6.degree., 1;

L-leucine, 77, 5.9.degree., 0.8; L-isoleucine, 70.5, 18.9.degree., 0.6; L-methionine, 36, 14.5.degree., 1.2; L-phenylalanine, 86, 7.3.degree., 0.5. In the prepn. of the I of L-alanine, the solid II was added with stirring to the III in CHCl<sub>3</sub>; in the prepn. of the I of L-methionine, the mixt. was heated at 40-50.degree.. The appropriate I and N-acylamino acid (VI) (0.01 mole each) in 50 cc. **dry** tetrahydrofuran treated at -15.degree. with dicyclohexylcarbodiimide and 1 g. Et<sub>3</sub>N in a little tetrahydrofuran, stirred 10 min., warmed to room temp., filtered, and evapd. gave the corresponding IV; method A. The appropriate VI (0.005 mole) and 0.5 g. Et<sub>3</sub>N in 30 cc. **dry** tetrahydrofuran treated dropwise at -15.degree. with 0.54 g. ClCO<sub>2</sub>Et in a little tetrahydrofuran and after 10 min. with 0.005 mole appropriate I and during 10 min. with 0.5 g. Et<sub>3</sub>N, warmed to room temp., and kept overnight yielded the corresponding IV; method B. The appropriate VI (0.02 mole) and 2 g. MeCN in 50 cc. MeCN added at 0.degree. to 5.1 g. Woodward reagent K in 40 cc. MeCN, stirred 2 hrs. at 0.degree., treated with 0.02 mole appropriate I and 2 g. Et<sub>3</sub>N, and stirred overnight without cooling yielded the corresponding IV; method C. 1-Hydroxypiperidine ester of, Method, % yield, m.p., [ $\alpha$ ]<sub>D</sub><sup>20</sup>, c in MeOH; Z-Val-Ala, A, 59, 130.degree., -72.2.degree., 1.7; Z-Met-Ala, A, 51, 97.degree., -41.degree., 1; Z-Phe-Ala, A, 9, 99-101.degree., -29.5.degree., 1; p-MeOC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>O<sub>2</sub>C-Try-Ala, C, 70, 118.5-20.degree., -9.9.degree., 1; Z-Ala-Val, C, 72, 88-90.degree., -75.2.degree., 1; CF<sub>3</sub>CO-Gly-Val, A, 85, 111-12.degree., -62.degree., 1; Z-Pro-Val, C, 78 (68), 111-13.degree., -94.5.degree., 1; Z-Met-Val, C, 61, 80-1.degree., -27.5.degree., 1; Phe-Val, C, 77 (21), 110-11.degree., -32.0.degree., 1; Z-Ser-Val, C, 50, oil, -36.degree., 1; Z-Gly-Leu, B, 61, 88-91.degree., -15.6.degree., 0.5; Z-Val-Leu, B, 47, 104-5.degree., -32.5.degree., 1; Z-Phe-Leu, A, 68, 99-102.degree., -57.5.degree., 1; Z-Ala-Ile, A, 90, --, --, --; Z-Val-Ile, B, 79, 88-9.degree., -43.degree., 1; Z-Pro-Ile, A (B), 79, oil, --, --; Z-Phe-Ile, B, 74, 95-6.degree., -27.4.degree., 0.9; Z-Ala-Met, C, 82, 155-8.degree., -41.degree., 1; Z-Phe-Met, B (C), 53 (77), 124-6.degree., -31.degree., -1.5; Z-Ala-Phe, C (B), 77 (44), 96-7.degree., -43.1.degree., 1; Z-Leu-Phe, B (C), 59 (86), 89-91.degree., -12.8.degree., 0.5; Z-Met-Phe, C, 71, 95-7.degree., -31.4.degree., 1; , A, 56, 93-5.degree., --, --; , B, 45, 95-7.degree., --, --; , D, 82, 94-6.degree., --, --; , D, 86, 95-7.degree., --, --; Z-Phe-Phe, C, 75, 132-3.degree., -24.4.degree., 1; , A, 58, 131-2.degree., --, --; , B, 47, 132-3.degree., --, --; Z-Ser-Phe, C, 78, 138-9.5.degree., -30.2.degree., 1; Z-Glu( $\gamma$ -NH<sub>2</sub>)-Phe, C, 78, 145-7.degree., -32.1.degree., 1; p-MeOC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>O<sub>2</sub>C-Try-Phe, C, 84, 75-6.degree., -6.9.degree., 1 V, mole ratio of IV to amino acid ester, reaction temp. (hrs.), at 20.degree., at 40.degree., % yield, m.p., [ $\alpha$ ]<sub>D</sub><sup>20</sup>, c in MeOH; p-MeOC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>O<sub>2</sub>C-Try-Ala-Ala-OMe, 1:2, --, 48, 67, 170-1.degree., -8.5, 0.6 (EtOH); p-MeOC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>O<sub>2</sub>C-Try-Ala-Ala-OMe, 1:2, --, 48, 51, 165-8.degree., -27.0, 0.7 (EtOH); Z-Ala-Val-Ala-OMe, 1:1.3, 68, 22, 51, 210.degree., (-68.degree.), 1; Z-Ala-Val-Phe-OMe, 1:1.3, 68, 24, 46, 199-200.degree., (-44.degree.), 0.5 (AcOH); Z-Pro-Val-Ala-OMe, 1:1.3, 68, 27, 59, 149-52.degree., (-108.5.degree.), 1; Z-Pro-Val-Phe-OMe, 1:1.3, 68, 29, 54.5, 186.degree., (-86.degree.), 0.5; Z-Phe-Val-(CF<sub>3</sub>CO) Lys-OMe, 1:1.3, 73, 48, 60, 143.degree., -27.4.degree., 0.5; Z-Ser-Val-Ala-OMe, 1:1.3, 50, 68, 35, 194.5-96.degree., -57.2.degree., 0.7 (AcOH); Z-Gly-Leu-Met-OMe, 1:2, 17, --, 84.5, 117-18.degree., -12.5.degree., 0.6 (AcOEt); Z-Val-Leu-Phe-OMe, 1:2, 72, --, 51, 175-7.degree., -29.9.degree., 0.7; Z-Phe-Leu-Gly-OMe, 1:2, 24, 24, 83, 166-7.degree., -24.1.degree., 0.8; Z-Phe-Leu-Val-OMe, 1:2, 96, --, 81, 133-5.degree., -44.7.degree., 0.8; Z-Phe-Leu-Thr-OMe, 1:2, 72, --, 71, 148-50.degree.,

-30.7.degree., 0.9; Z-Ala-Ile-Gly-OMe, 1:2, 72, --, 48, 189-92.degree.,  
 -59.degree., 1; Z-Val-Ile-Ala-OMe, 1:2, 72, --, 41, 196.degree.,  
 -72.3.degree., 0.6; Z-Pro-Ile-Gly-OMe, 1:2, 24, --, 73, 137-8.degree.,  
 (-92.degree.), 1; Z-Pro-Ile-Gly-OMe, 1:2, 48, --, 40, 152.degree.,  
 (-85.5.degree.), 2; Z-Phe-Ile-Gly-OMe, 1:2, 48, --, 100, 185.degree.,  
 -18.7.degree., 0.5; Z-Phe-Ile-Ser-OMe, 1:2, 48, --, 34, 176.degree.  
 (decompn.), -34.2.degree., 0.5; Z-Ala-Met-Ile-OMe, 1:1.3, 72, 24, 59,  
 147.5-8.5.degree., (-45.degree.), 0.8; Z-Phe-Met-Ala-OMe, 1:1.3, 24, 96,  
 45, 188-90.degree., (-35.5.degree.), 0.7; Z-Phe-Met-Val-OMe, 1:1.3, 24,  
 72, 55, 141-3.degree., (-27.degree.), 1; Z-Phe-Met-Leu-OMe, 1:1.5, 24, 72,  
 57, 132-4.degree., (-30.degree.), 0.7; Z-Ala-Phe-Met-OMe, 1:1.3, 66, 36,  
 96, 156-7.degree., -62.1.degree., 1; Z-Leu-Phe-Val-OMe, 1:1.3, --, 21, 69,  
 148-50.degree., (-21.1.degree.), 1; Z-Met-Phe-Gly-OMe, 1:1.3, 48, 22, 96,  
 164.5-5.5.degree., -22.5.degree., 0.5; Z-Met-Phe-Ala-OMe, 1:1.3, 48, 22,  
 89, 174-5.degree., (-55.degree.), 1; Z-Met-Phe-Val-OMe, 1:1.3, 60, 36,  
 87.5, 162-4.degree., -48.5.degree., 1; Z-Met-Phe-Leu-OMe, 1:1.3, 60, 36,  
 89, 156-8.degree., -54.8.degree., 1; Z-Met-Phe-Ile-OMe, 1:1.3, 60, 36, 91,  
 167-8.5.degree., -41.1.degree., 1; Z-Met-Phe-Met-OMe, 1:1.3, 60, 36, 92,  
 143-5.degree., -54.1.degree., 1; Z-Met-Phe-Phe-OMe, 1:1.3, 60, 36, 97,  
 166-7.degree., (-38.2.degree.), 1; Z-Phe-Phe-Met-OMe, 1:1.3, 48, 24, 70,  
 164-5.5.degree., -25.1.degree., 1 (tetrahydrofuran); p-MeOC6H4CH2O2C-Try-  
 Phe-Ala-OMe, 1:2, 48, 24, 71, 164-6.degree., -25.6.degree., 0.7 (EtOH);  
 p-MeOC6H4CH2O2C-Try-Phe-Leu-OMe, 1:2, 48, 24, 52, 152-4.degree.,  
 -27.8.degree., 0.7 (EtOH) The values in parentheses are [ $\alpha$ ] values.  
 The appropriate VI and I (0.005 mole) and 0.5 g. Et3N in 30 cc.

**dry** tetrahydrofuran treated during 0.5 hr. with stirring at room  
 temp. with 0.0055 mole MeC: CNet2 in a little tetrahydrofuran, and evapd.,  
 and the residue partitioned between H2O and AcOEt yielded the  
 corresponding IV; method D. By these methods were prepd. the IV listed in  
 the 1st table. The appropriate IV in the min. amt. dioxane or  
 tetrahydrofuran treated with 20-100% excess amino acid alkyl ester HCl  
 salt and an equiv. amt. AcONa, kept at the desired temp., and evapd., and  
 the residue partitioned between H2O and AcOEt yielded the corresponding V  
 (listed in the 2nd table) (Z = PhCH2AO2).

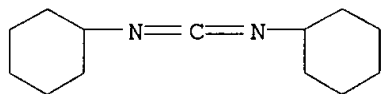
CC 44 (Amino Acids, Peptides, and Proteins)

IT **538-75-0**, Carbodiimide, dicyclohexyl- **6066-82-6**,  
 Succinimide, N-hydroxy-  
 (in peptide prepn., racemization and)

IT **538-75-0**, Carbodiimide, dicyclohexyl- **6066-82-6**,  
 Succinimide, N-hydroxy-  
 (in peptide prepn., racemization and)

RN 538-75-0 HCAPLUS

CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



RN 6066-82-6 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

